

Appointment

From: cathy.tortorici@noaa.gov [cathy.tortorici@noaa.gov]
Sent: 9/12/2018 8:44:45 PM
To: cathy.tortorici@noaa.gov; Miller, Wynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; ashley_stilson@fws.gov; Paula.JonesYates@noaa.gov [paula.jonesyates@noaa.gov]; Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]; craig_aubrey@fws.gov; Patrice Ashfield [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user1f5a6e17]; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]; Guilaran, Yu-Ting [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a698774e93e34a2b9181d4b3032b8a32-ytguilar]; Perry, Tracy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ffd9b082a6484fe8a70cade93a68466c-Tracy L Perry]; NMFS - HQ - PR5 Conference Line [noaa.gov_33333437383537302d343932@resource.calendar.google.com]; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; Sims, Diann [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ca5706c9da345c5af43f0899cf3a8df-Diann Sims]; sheryl.kunickis@osec.usda.gov; lois_wellman@fws.gov

Subject: Updated invitation: ESA/Pesticide Sr. Mgrs Call @ Thu Sep 13, 2018 8am - 9am (EDT) (anderson.brian@epa.gov)
Attachments: invite.ics
Location: NMFS - HQ - PR5 Conference Line

Start: 9/13/2018 12:00:00 PM
End: 9/13/2018 1:00:00 PM
Show Time As: Tentative

Recurrence: (none)

This event has been changed.

[more details »](#)

ESA/Pesticide Sr. Mgrs Call

When Thu Sep 13, 2018 8am – 9am Eastern Time - New York

Where NMFS - HQ - PR5 Conference Line ([map](#))

Calendar anderson.brian@epa.gov

Who

- cathy.tortorici@noaa.gov - organizer
- Paula.JonesYates@noaa.gov - creator
- miller.wynne@epa.gov
- ashley_stilson@fws.gov
- anderson.brian@epa.gov
- craig_aubrey@fws.gov
- patrice_ashfield@fws.gov
- Gina_Shultz@fws.gov
- guilaran.yu-ting@epa.gov
- perry.tracy@epa.gov
- echeverria.marietta@epa.gov
- sims.diann@epa.gov

- sheryl.kunickis@osec.usda.gov
- lois_wellman@fws.gov

Changed:

- status of useage data conversations
- status of FWS conversations with the registrants
- Any Malathion litigation news to share?
- On getting useage data for the B&P BiOp

- FWS

Participant call-in details:

Personal Matters / Ex. 6

AGENDA ITEMS

-

Going? **Yes - Maybe - No** [more options »](#)

Invitation from [Google Calendar](#)

You are receiving this courtesy email at the account anderson.brian@epa.gov because you are an attendee of this event.

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Appointment

From: cathy.tortorici@noaa.gov [cathy.tortorici@noaa.gov]
Sent: 9/5/2018 9:26:03 PM
To: cathy.tortorici@noaa.gov; Sims, Diann [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ca5706c9da345c5af43f0899cf3a8df-Diann Sims]; Patrice Ashfield [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user1f5a6e17]; Perry, Tracy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ffd9b082a6484fe8a70cade93a68466c-Tracy L Perry]; Miller, Wynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; NMFS - HQ - PR5 Conference Line [noaa.gov_33333437383537302d343932@resource.calendar.google.com]; Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]; craig_aubrey@fws.gov; ashley_stilson@fws.gov; Paula.JonesYates@noaa.gov [paula.jonesyates@noaa.gov]; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; sheryl.kunickis@osec.usda.gov; Guilaran, Yu-Ting [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a698774e93e34a2b9181d4b3032b8a32-ytguilar]; lois_wellman@fws.gov; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]
Subject: Updated invitation: ESA/Pesticide Sr. Mgrs Call @ Thu Sep 6, 2018 8am - 9am (EDT) (anderson.brian@epa.gov)
Attachments: invite.ics
Location: NMFS - HQ - PR5 Conference Line
Start: 9/6/2018 12:00:00 PM
End: 9/6/2018 1:00:00 PM
Show Time As: Tentative
Recurrence: (none)

This event has been changed.

more details »

ESA/Pesticide Sr. Mgrs Call

When Thu Sep 6, 2018 8am – 9am Eastern Time - New York

Where NMFS - HQ - PR5 Conference Line ([map](#))

Calendar anderson.brian@epa.gov

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- ashley_stilson@fws.gov
- echeverria.marietta@epa.gov
- sheryl.kunickis@osec.usda.gov

- guilaran.yu-ting@epa.gov
- lois_wellman@fws.gov
- Gina_Shultz@fws.gov

Changed: Agenda items -

First 15 minutes -

- Getting useage data on bromoxynil and prometryn for the NMFS BiOp
- Status of the Florida useage pilot
- The EPA RPA/RPM document
- FWS conversation with Registrants on getting useage data?
- Report to Congress (EFED)
- Letter exchange for admin record (PRD)
- Expectations on reporting out from usage meetings? (EFED)

Last 45 minutes -

- malathion consultation timeline/litigation (Just FWS/EPA)

Personal Matters / Ex. 6

AGENDA ITEMS

- Malathion consultation timeline

Going? **Yes** - **Maybe** - **No** [more options »](#)

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 Conference Line [noaa.gov_33333437383537302d343932@resource.calendar.google.com];
 anderson.brian@epa.gov; craig_aubrey@fws.gov; ashley_stilson@fws.gov; Paula.JonesYates@noaa.gov
 [paula.jonesyates@noaa.gov]; echeverria.marietta@epa.gov; sheryl.kunickis@osec.usda.gov; guilaran.yu-
 ting@epa.gov; lois_wellman@fws.gov; Gina_Shultz@fws.gov [gina_shultz@fws.gov]

Subject: ESA/Pesticide Sr. Mgrs Call
Location: NMFS - HQ - PR5 Conference Line

Start: 9/6/2018 12:00:00 PM
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Show Time As: Tentative

Recurrence: (none)

Agenda items -

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Last 45 minutes -

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Personal Matters / Ex. 6

AGENDA ITEMS

- Malathion consultation timeline

[illegible]

View your event at

https://www.google.com/calendar/event?action=VIEW&eid=M2N1cmFzOWczZjczMXVobGV2Mjhmm5rb2RfmJxODA5MDZUMTIwMDAwWiBhbmlcnNvb3I5cm1hbkb1cGEuZD92&tok=MjQyY2F0aHkudG9ydG9yaWNPQG5vYWUuZD92OTBmMzZiN2VjNDRLMmRlMWE2MzgWZiAzOWZhNDcxMDVlNWViNTNiNO&ctz=America%2FNew_York&hl=en&es=0.

Appointment

From: Anderson, Brian [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CE7D6E5AD2E94B3F8F5AC4D839A6C268-BRIAN ANDERSON]
Sent: 8/16/2018 8:41:13 PM
To: Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]; Dyner, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4cd0cdc2070545e5852c81739f765bc5-MDYNER]; Echeverria, Marietta (Echeverria.Marietta@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; shawn.finley@sol.doi.gov; Brown-Kobil, Nancy [nancy.brown-kobil@sol.doi.gov]; Miller, Wynne (Miller.Wynne@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]
CC: Knorr, Michele [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5e2165e5c2224bac8d33c2f857c33886-MKnorr]
Subject: Discuss interpretation of the action and defining the action area for pesticide effects determinations - call in number added
Attachments: FWS_EPA_ActionArea_Issue 08.16.2018_FWS comments v2.docx
Location: 10671
Start: 8/21/2018 6:00:00 PM
End: 8/21/2018 7:00:00 PM
Show Time As: Busy

Please forward as appropriate

Personal Matters / Ex. 6

Appointment

From: Gina_Shultz@fws.gov [gina_shultz@fws.gov]
Sent: 3/22/2018 11:47:02 AM
To: Gina_Shultz@fws.gov [gina_shultz@fws.gov]; NMFS - HQ - PR5 Conference Line [noaa.gov_33333437383537302d343932@resource.calendar.google.com]; Miller, Wynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; Patrice Ashfield [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user1f5a6e17]; Paula.JonesYates@noaa.gov [paula.jonesyates@noaa.gov]; Perry, Tracy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ffd9b082a6484fe8a70cade93a68466c-Tracy L Perry]; cathy.tortorici@noaa.gov [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1bdaaff0c14a4264abc82f1468af694d-cathy.tortorici@noaa.gov]; craig_aubrey@fws.gov; Guilaran, Yu-Ting [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a698774e93e34a2b9181d4b3032b8a32-ytguilar]; Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]; sheryl.kunickis@osec.usda.gov; Sims, Diann [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ca5706c9da345c5af43f0899cf3a8df-Diann Sims]; ashley_stilson@fws.gov; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]
Subject: Updated invitation: ESA/Pesticide Senior Managers @ Thu Mar 22, 2018 10am - 11am (EDT) (anderson.brian@epa.gov)
Attachments: invite.ics
Location: NMFS - HQ - PR5 Conference Line
Start: 3/22/2018 2:00:00 PM
End: 3/22/2018 3:00:00 PM
Show Time As: Tentative
Recurrence: (none)

This event has been changed.

[more details »](#)

ESA/Pesticide Senior Managers

When Changed: Thu Mar 22, 2018 10am – 11am Eastern Time

Where NMFS - HQ - PR5 Conference Line ([map](#))

Video call https://plus.google.com/hangouts/_/doi.gov/gina-shultz

Calendar anderson.brian@epa.gov

Who

- Gina_Shultz@fws.gov - organizer
- lois_wellman@fws.gov - creator
- miller.wynne@epa.gov
- patrice_ashfield@fws.gov
- Paula.JonesYates@noaa.gov
- perry.tracy@epa.gov
- cathy.tortorici@noaa.gov
- craig_aubrey@fws.gov
- guilaran.yu-ting@epa.gov

- anderson.brian@epa.gov
- sheryl.kunickis@osec.usda.gov
- sims.diann@epa.gov
- ashley_stilson@fws.gov
- echeverria.marietta@epa.gov

Personal Matters / Ex. 6

Agenda Items:

Status of the FWS spreadsheet
Engaging registrants in usage data catalog and collection
Public comment period on NMFS BiOp
Bomoxynil BiOp situation
The Pesticides MOA
Senate Legislation on pesticides work
CBD NOI on Malathion

Going? **Yes** - **Maybe** - **No** more options »

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Appointment

From: Gina_Shultz@fws.gov [gina_shultz@fws.gov]
To: NMFS - HQ - PR5 Conference Line [noaa.gov_33333437383537302d343932@resource.calendar.google.com]; miller.wynne@epa.gov; Gina_Shultz@fws.gov [gina_shultz@fws.gov]; patrice_ashfield@fws.gov; Paula.JonesYates@noaa.gov [paula.jonesyates@noaa.gov]; perry.tracy@epa.gov; cathy.tortorici@noaa.gov; craig_aubrey@fws.gov; guilaran.yu-ting@epa.gov; anderson.brian@epa.gov; sheryl.kunickis@osec.usda.gov; sims.diann@epa.gov; ashley_stilson@fws.gov; echeverria.marietta@epa.gov

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Recurrence: (none)

Personal Matters / Ex. 6

Items:
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The Pesticides MOA
Senate Legislation on pesticides work
CBD NOI on Malathion

Please do not edit this section of the description.

This event has a Google Hangouts video call.
Join: https://plus.google.com/hangouts/_/doi.gov/gina-shultz?hceid=Z21uYV9zaHVsdHpAZndzLmdvdg.ek2mc2dhm1npqcrcks297idlq4&hs=121

View your event at
https://www.google.com/calendar/event?action=VIEW&eid=ZwsybWMyZGhtMW5wcWNY2tzMjk3aWRscTRfMjAxODAZMjJUMTIwMDAwWiBhbmRlcnNvbi5icm1hbkb1cGEuZ292&tok=MTkjZ21uYV9zaHVsdHpAZndzLmdvdjkyN2ExODRmOGIwOTNlYjRkODQ5MjEyMWVlYTZjMjQxZGJmYTQwYWI&ctz=America%2FNew_York&hl=en&es=0

Appointment

From: cathy.tortorici@noaa.gov [cathy.tortorici@noaa.gov]
Sent: 9/5/2018 5:55:43 PM
To: Sims, Diann [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ca5706c9da345c5af43f0899cf3a8df-Diann Sims]; Patrice Ashfield [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user1f5a6e17]; Perry, Tracy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ffd9b082a6484fe8a70cade93a68466c-Tracy L Perry]; Miller, Wynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; NMFS - HQ - PR5 Conference Line [noaa.gov_33333437383537302d343932@resource.calendar.google.com]; Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]; craig_aubrey@fws.gov; ashley_stilson@fws.gov; Paula.JonesYates@noaa.gov [paula.jonesyates@noaa.gov]; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; sheryl.kunickis@osec.usda.gov; Guilaran, Yu-Ting [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a698774e93e34a2b9181d4b3032b8a32-ytguilar]; lois_wellman@fws.gov; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]
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- sheryl.kunickis@osec.usda.gov

- guilaran.yu-ting@epa.gov
- lois_wellman@fws.gov
- Gina_Shultz@fws.gov

Changed:

Agenda items -

- Getting useage data on bromoxynil and prometryn for the NMFS BiOp
- Status of the Florida useage pilot
- The EPA RPA/RPM document
- ~~EWS conversation with Registrants on getting useage data?~~

Personal Matters / Ex. 6

AGENDA ITEMS

- Malathion consultation timeline

Going? **Yes** - **Maybe** - **No** [more options »](#)

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Personal Matters / Ex. 6

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- Malathion consultation timeline

~~~~~  
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 ~~~~~~

Appointment

From: cathy.tortorici@noaa.gov [cathy.tortorici@noaa.gov]
Sent: 9/5/2018 9:09:31 PM
To: Sims, Diann [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ca5706c9da345c5af43f0899cf3a8df-Diann Sims]; Patrice Ashfield [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user1f5a6e17]; Perry, Tracy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ffd9b082a6484fe8a70cade93a68466c-Tracy L Perry]; Miller, Wynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; NMFS - HQ - PR5 Conference Line [noaa.gov_33333437383537302d343932@resource.calendar.google.com]; Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]; craig_aubrey@fws.gov; ashley_stilson@fws.gov; Paula.JonesYates@noaa.gov [paula.jonesyates@noaa.gov]; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; sheryl.kunickis@osec.usda.gov; Guilaran, Yu-Ting [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a698774e93e34a2b9181d4b3032b8a32-ytguilar]; lois_wellman@fws.gov; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]
Subject: Updated invitation: ESA/Pesticide Sr. Mgrs Call @ Thu Sep 6, 2018 8am - 9am (EDT) (anderson.brian@epa.gov)
Attachments: invite.ics
Location: NMFS - HQ - PR5 Conference Line
Start: 9/6/2018 12:00:00 PM
End: 9/6/2018 1:00:00 PM
Show Time As: Tentative
Recurrence: (none)

This event has been changed.

more details »

ESA/Pesticide Sr. Mgrs Call

When Thu Sep 6, 2018 8am – 9am Eastern Time - New York

Where NMFS - HQ - PR5 Conference Line ([map](#))

Calendar anderson.brian@epa.gov

Who

- cathy.tortorici@noaa.gov - organizer
- Paula.JonesYates@noaa.gov - creator
- sims.diann@epa.gov
- patrice_ashfield@fws.gov
- perry.tracy@epa.gov
- miller.wynne@epa.gov
- anderson.brian@epa.gov
- craig_aubrey@fws.gov
- ashley_stilson@fws.gov
- echeverria.marietta@epa.gov
- sheryl.kunickis@osec.usda.gov

- guilaran.yu-ting@epa.gov
- lois_wellman@fws.gov
- Gina_Shultz@fws.gov

Changed: Agenda items -

First 15 minutes -

- Getting useage data on bromoxynil and prometryn for the NMFS BiOp
- Status of the Florida useage pilot
- The EPA RPA/RPM document
- FWS conversation with Registrants on getting useage data?

Last 45 minutes -

- malathion consultation timeline/litigation (Just FWS/EPA)

Personal Matters / Ex. 6

AGENDA ITEMS

- Malathion consultation timeline

Going? **Yes - Maybe - No** [more options »](#)

Invitation from [Google Calendar](#)

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Forwarding this invitation could allow any recipient to modify your RSVP response [Learn More](#).

ED 002144 00000012-00001

Appointment

From: Gina_Shultz@fws.gov [gina_shultz@fws.gov]
Sent: 3/22/2018 11:46:58 AM
To: NMFS - HQ - PR5 Conference Line [noaa.gov_33333437383537302d343932@resource.calendar.google.com]; Miller, Wynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; Patrice Ashfield [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user1f5a6e17]; Paula.JonesYates@noaa.gov [paula.jonesyates@noaa.gov]; Perry, Tracy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ffd9b082a6484fe8a70cade93a68466c-Tracy L Perry]; cathy.tortorici@noaa.gov [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1bdaaff0c14a4264abc82f1468af694d-cathy.tortorici@noaa.gov]; craig_aubrey@fws.gov; Guilaran, Yu-Ting [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a698774e93e34a2b9181d4b3032b8a32-ytguilar]; Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]; sheryl.kunickis@osec.usda.gov; Sims, Diann [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ca5706c9da345c5af43f0899cf3a8df-Diann Sims]; ashley_stilson@fws.gov; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]
Subject: Updated invitation: ESA/Pesticide Senior Managers @ Thu Mar 22, 2018 10am - 11am (EDT) (anderson.brian@epa.gov)
Attachments: invite.ics
Location: NMFS - HQ - PR5 Conference Line
Start: 3/22/2018 2:00:00 PM
End: 3/22/2018 3:00:00 PM
Show Time As: Tentative
Recurrence: (none)

This event has been changed.

[more details »](#)

ESA/Pesticide Senior Managers

When Changed: Thu Mar 22, 2018 10am – 11am Eastern Time

Where NMFS - HQ - PR5 Conference Line ([map](#))

Video call https://plus.google.com/hangouts/_/doi.gov/gina-shultz

Calendar anderson.brian@epa.gov

Who

- Gina_Shultz@fws.gov - organizer
- lois_wellman@fws.gov - creator
- miller.wynne@epa.gov
- patrice_ashfield@fws.gov
- Paula.JonesYates@noaa.gov
- perry.tracy@epa.gov
- cathy.tortorici@noaa.gov
- craig_aubrey@fws.gov
- guilaran.yu-ting@epa.gov
- anderson.brian@epa.gov

- sheryl.kunickis@osec.usda.gov
- sims.diann@epa.gov
- ashley_stilson@fws.gov
- echeverria.marietta@epa.gov

Personal Matters / Ex. 6

Agenda Items:

Status of the FWS spreadsheet
Engaging registrants in usage data catalog and collection
Public comment period on NMFS BiOp
Bomoxynil BiOp situation
The Pesticides MOA
Senate Legislation on pesticides work
CBD NOI on Malathion

Going? **Yes** - **Maybe** - **No more options »**

Invitation from [Google Calendar](#)

You are receiving this courtesy email at the account anderson.brian@epa.gov because you are an attendee of this event.

To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://www.google.com/calendar/> and control your notification settings for your entire calendar.

Forwarding this invitation could allow any recipient to modify your RSVP response. [Learn More](#).

Appointment

From: Gina_Shultz@fws.gov [gina_shultz@fws.gov]
To: NMFS - HQ - PR5 Conference Line [noaa.gov_33333437383537302d343932@resource.calendar.google.com]; miller.wynne@epa.gov; Gina_Shultz@fws.gov [gina_shultz@fws.gov]; patrice_ashfield@fws.gov; Paula.JonesYates@noaa.gov [paula.jonesyates@noaa.gov]; perry.tracy@epa.gov; cathy.tortorici@noaa.gov; craig_aubrey@fws.gov; guilaran.yu-ting@epa.gov; anderson.brian@epa.gov; sheryl.kunickis@osec.usda.gov; sims.diann@epa.gov; ashley_stilson@fws.gov; echeverria.marietta@epa.gov

Subject: ESA/Pesticide Senior Managers
Location: NMFS - HQ - PR5 Conference Line

Start: 3/22/2018 2:00:00 PM
End: 3/22/2018 3:00:00 PM
Show Time As: Tentative

Recurrence: (none)

Participant call-in Details	Personal Matters / Ex. 6	Agenda
Items:	spreadsheet	Engaging registrants in usage data catalog and collection
Status of the FWS	Public comment period on NMFS BiOp	Bomoxynil BiOp situation
MOA	Senate Legislation on pesticides work	CBD NOI on Malathion

[illegible]

This event has a Google Hangouts video call.
Join: https://plus.google.com/hangouts/_/doi.gov/gina-shultz?hceid=Z21uYV9zaHVsdHpAZndzLmdvdg.ek2mc2dhm1npqcrcks297id1q4&hs=121

View your event at
https://www.google.com/calendar/event?action=VIEW&eid=ZwsybWMyZGhtMW5wcWNY2tzMjk3aWRscTRfMjAxODAzMjJUMTlWMDAwWiBhbmRlcnnvbi5icmlhbkBlcGEuZ292&tok=MTkjZ2l1YV9zaHVsdHpAZndzLmdvdjkyN2ExODRMOGIwOTNlYjRkODQ5MjEyMWVlYTZjMjQxZGJmYTQwYWI&ctz=America%2FNew_York&hl=en&es=0.
 ~~~~~

Message

---

**From:** Ashfield, Patrice [patrice\_ashfield@fws.gov]  
**Sent:** 2/20/2018 7:56:07 PM  
**To:** Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]  
**Subject:** Updated Draft Agenda  
**Attachments:** Draft agenda for pesticide use meeting\_2\_16\_2018 final.docx

Take a look. I will send out to the whole Pest Management shortly but giving you first look.

---

Patrice M. Ashfield  
Branch Chief for National Pesticide Consultations  
Headquarters, Fish and Wildlife Service  
5275 Leesburg Pike, MS:ES  
Falls Church, VA 22041  
(703) 358-2478 office

---



Message

---

**From:** Ashfield, Patrice [patrice\_ashfield@fws.gov]  
**Sent:** 2/16/2018 9:38:25 PM  
**To:** Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]  
**Subject:** Fwd: latest draft agenda  
**Attachments:** Draft agenda for pesticide use meeting\_2\_16\_2018.docx

here it is. let's talk tuesday. have a good holiday

---

Patrice M. Ashfield  
Branch Chief for National Pesticide Consultations  
Headquarters, Fish and Wildlife Service  
5275 Leesburg Pike, MS:ES  
Falls Church, VA 22041  
(703) 358-2478 office

---

----- Forwarded message -----

**From:** **Thompson, Jennifer** <jennifer\_thompson@fws.gov>  
**Date:** Fri, Feb 16, 2018 at 2:11 PM  
**Subject:** latest draft agenda  
**To:** Patrice Ashfield <patrice\_ashfield@fws.gov>

also in the workshop folder on the R: drive

---  
Jennifer Thompson  
U S Fish & Wildlife Service  
Ecological Services, MS. ES  
5275 Leesburg Pike  
Falls Church, VA 22041-3803  
(703) 358-2566

## Appointment

---

**From:** cathy.tortorici@noaa.gov [cathy.tortorici@noaa.gov]  
**Sent:** 9/12/2018 8:44:40 PM  
**To:** Miller, Wynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; ashley\_stilson@fws.gov; Paula.JonesYates@noaa.gov [paula.jonesyates@noaa.gov]; Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]; craig\_aubrey@fws.gov; Patrice Ashfield [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user1f5a6e17]; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]; Guilaran, Yu-Ting [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a698774e93e34a2b9181d4b3032b8a32-ytguilar]; Perry, Tracy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ffd9b082a6484fe8a70cade93a68466c-Tracy L Perry]; NMFS - HQ - PR5 Conference Line [noaa.gov\_33333437383537302d343932@resource.calendar.google.com]; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; Sims, Diann [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ca5706c9da345c5af43f0899cf3a8df-Diann Sims]; sheryl.kunikis@osec.usda.gov; lois\_wellman@fws.gov

**Subject:** Updated invitation: ESA/Pesticide Sr. Mgrs Call @ Thu Sep 13, 2018 8am - 9am (EDT) (anderson.brian@epa.gov)  
**Attachments:** invite.ics  
**Location:** NMFS - HQ - PR5 Conference Line

**Start:** 9/13/2018 12:00:00 PM  
**End:** 9/13/2018 1:00:00 PM  
**Show Time As:** Tentative

**Recurrence:** (none)

This event has been changed.

**more details »**

**ESA/Pesticide Sr. Mgrs Call**

**When** Thu Sep 13, 2018 8am – 9am Eastern Time - New York

**Where** NMFS - HQ - PR5 Conference Line ([map](#))

**Calendar** anderson.brian@epa.gov

**Who**

- cathy.tortorici@noaa.gov - organizer
- Paula.JonesYates@noaa.gov - creator
- miller.wynne@epa.gov
- ashley\_stilson@fws.gov
- anderson.brian@epa.gov
- craig\_aubrey@fws.gov
- patrice\_ashfield@fws.gov
- Gina\_Shultz@fws.gov
- guilaran.yu-ting@epa.gov
- perry.tracy@epa.gov
- echeverria.marietta@epa.gov
- sims.diann@epa.gov

- sheryl.kunickis@osec.usda.gov
- lois\_wellman@fws.gov

**Changed:**

- status of useage data conversations
- status of FWS conversations with the registrants
- Any Malathion litigation news to share?
- On getting useage data for the B&P BiOp

- FWS

Participant call-in details:

**Personal Matters / Ex. 6**

**AGENDA ITEMS**

-

Going? **Yes - Maybe - No** [more options »](#)

Invitation from [Google Calendar](#)

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Forwarding this invitation could allow any recipient to modify your RSVP response. [Learn More](#).



## Appointment

---

**From:** cathy.tortorici@noaa.gov [cathy.tortorici@noaa.gov]  
**Sent:** 9/5/2018 9:26:03 PM  
**To:** Sims, Diann [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ca5706c9da345c5af43f0899cf3a8df-Diann Sims]; Patrice Ashfield [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user1f5a6e17]; Perry, Tracy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ffd9b082a6484fe8a70cade93a68466c-Tracy L Perry]; Miller, Wynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; NMFS - HQ - PR5 Conference Line [noaa.gov\_33333437383537302d343932@resource.calendar.google.com]; Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]; craig\_aubrey@fws.gov; ashley\_stilson@fws.gov; Paula.JonesYates@noaa.gov [paula.jonesyates@noaa.gov]; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; sheryl.kunickis@osec.usda.gov; Guilaran, Yu-Ting [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a698774e93e34a2b9181d4b3032b8a32-ytguilar]; lois\_wellman@fws.gov; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]  
**Subject:** Updated invitation: ESA/Pesticide Sr. Mgrs Call @ Thu Sep 6, 2018 8am - 9am (EDT) (anderson.brian@epa.gov)  
**Attachments:** invite.ics  
**Location:** NMFS - HQ - PR5 Conference Line  
**Start:** 9/6/2018 12:00:00 PM  
**End:** 9/6/2018 1:00:00 PM  
**Show Time As:** Tentative  
**Recurrence:** (none)

This event has been changed.

**more details »**

**ESA/Pesticide Sr. Mgrs Call**

**When** Thu Sep 6, 2018 8am – 9am Eastern Time - New York

**Where** NMFS - HQ - PR5 Conference Line ([map](#))

**Calendar** anderson.brian@epa.gov

**Who**

- cathy.tortorici@noaa.gov - organizer
- Paula.JonesYates@noaa.gov - creator
- sims.diann@epa.gov
- patrice\_ashfield@fws.gov
- perry.tracy@epa.gov
- miller.wynne@epa.gov
- anderson.brian@epa.gov
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- ashley\_stilson@fws.gov
- echeverria.marietta@epa.gov
- sheryl.kunickis@osec.usda.gov

- guilaran.yu-ting@epa.gov
- lois\_wellman@fws.gov
- Gina\_Shultz@fws.gov

Changed: Agenda items -

First 15 minutes -

- Getting useage data on bromoxynil and prometryn for the NMFS BiOp
- Status of the Florida useage pilot
- The EPA RPA/RPM document
- FWS conversation with Registrants on getting useage data?
- Report to Congress (EFED)
- Letter exchange for admin record (PRD)
- Expectations on reporting out from usage meetings? (EFED)

Last 45 minutes -

- malathion consultation timeline/litigation (Just FWS/EPA)

#### Personal Matters / Ex. 6

#### AGENDA ITEMS

- Malathion consultation timeline

Going? **Yes - Maybe - No** [more options »](#)

Invitation from [Google Calendar](#)

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To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://www.google.com/calendar/> and control your notification settings for your entire calendar.

Forwarding this invitation could allow any recipient to modify your RSVP response [Learn More](#).

## Appointment

**From:** cathy.tortorici@noaa.gov [cathy.tortorici@noaa.gov]  
**To:** sims.diann@epa.gov; patrice\_ashfield@fws.gov; perry.tracy@epa.gov; miller.wynne@epa.gov; NMFS - HQ - PR5  
 Conference Line [noaa.gov\_33333437383537302d343932@resource.calendar.google.com];  
 anderson.brian@epa.gov; craig\_aubrey@fws.gov; ashley\_stilson@fws.gov; Paula.JonesYates@noaa.gov  
 [paula.jonesyates@noaa.gov]; echeverria.marietta@epa.gov; sheryl.kunickis@osec.usda.gov; guilaran.yu-  
 ting@epa.gov; lois\_wellman@fws.gov; Gina\_Shultz@fws.gov [gina\_shultz@fws.gov]

**Subject:** ESA/Pesticide Sr. Mgrs Call  
**Location:** NMFS - HQ - PR5 Conference Line

**Start:** 9/6/2018 12:00:00 PM  
**End:** 9/6/2018 1:00:00 PM  
**Show Time As:** Tentative

**Recurrence:** (none)

Agenda items -

First 15 minutes -

- Getting usage data on bromoxynil and prometryn for the NMFS BiOp
- Status of the Florida usage pilot
- The EPA RPA/RPM document
- FWS conversation with Registrants on getting usage data?
- Report to Congress (EFED)
- Letter exchange for admin record (PRD)
- Expectations on reporting out from usage meetings? (EFED)

Last 45 minutes -

- malathion consultation timeline/litigation (Just FWS/EPA)

## Personal Matters / Ex. 6

## AGENDA ITEMS

- Malathion consultation timeline

~~~~~  
Please do not edit this section of the description.

View your event at

https://www.google.com/calendar/event?action=VIEW&eid=M2N1cmFzOWczZjczMXVobGV2MjhmMm5rb2RfMjAxODA5MDZUMTIwMDAwWiBhbmRlcnNvb3I5cm1hbklB1cGEuZ292&tok=MjQjY2F0aHkudG9ydG9yawNpQG5vYWUuZ292OTBmMzZiN2VjNDRlMmRlMWE2MzgWZiZAZOWZhNDcxMDVlNWVjNTNiO&ctz=America%2FNew_York&hl=en&es=0

[illegible]

Message

From: Keith Paul [keith_paul@fws.gov]
Sent: 8/15/2018 7:33:06 PM
To: Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]
CC: Patrice Ashfield [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user1f5a6e17]
Subject: Milestone updates
Attachments: Usage WG Milestone Updates_Interagency_FWS_08-15-2018.docx

Hi Brian,

Please find attached our updates to the milestone/task interagency document.

Keith

Keith A Paul
U.S. Fish and Wildlife Service Headquarters
Ecological Services, MS: ES
5275 Leesburg Pike
Falls Church, VA 22041-3803
Phone: (703) 358-2675
Fax: (703) 358-1800

Message

From: Anderson, Brian [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CE7D6E5AD2E94B3F8F5AC4D839A6C268-BRIAN ANDERSON]
Sent: 2/15/2018 10:11:42 PM
To: Ashfield, Patrice [patrice_ashfield@fws.gov]
CC: Echeverria, Marietta (Echeverria.Marietta@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; Sims, Diann [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ca5706c9da345c5af43f0899cf3a8df-Diann Sims]; Miller, Wynne (Miller.Wynne@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]
Subject: Draft agenda for pesticide use meeting_2_15_2018.docx
Attachments: Draft agenda for pesticide use meeting_2_15_2018.docx

Hi Patrice,

Are you the right person to whom to send edits to the agenda? We have two additions at this time. Please feel free to give me a call if you have any questions.

Thanks

Brian

Message

From: Anderson, Brian [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CE7D6E5AD2E94B3F8F5AC4D839A6C268-BRIAN ANDERSON]
Sent: 2/14/2018 10:16:24 PM
To: Ashfield, Patrice [patrice_ashfield@fws.gov]
Subject: a few comments on the agenda
Attachments: Draft agenda for pesticide use meeting_2_14_2018b.docx

Hi Patrice,

Attached are a couple of comments on the agenda. We may have a few more forthcoming as well. I'm assuming this will be a bit fluid over the next week.

We can talk about it anytime.

Thanks

Brian

Appointment

From: Anderson, Brian [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CE7D6E5AD2E94B3F8F5AC4D839A6C268-BRIAN ANDERSON]
Sent: 8/21/2018 5:24:52 PM
To: Dynner, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4cd0cdc2070545e5852c81739f765bc5-MDYNER]; Echeverria, Marietta (Echeverria.Marietta@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; shawn.finley@sol.doi.gov; Brown-Kobil, Nancy [nancy.brown-kobil@sol.doi.gov]; Miller, Wynne (Miller.Wynne@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]
CC: Knorr, Michele [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5e2165e5c2224bac8d33c2f857c33886-MKnorr]
Subject: Discuss interpretation of the action and defining the action area for pesticide effects determinations - call in number added
Attachments: FWS_EPA_ActionArea_Issue 08.16.2018_FWS comments v2.docx
Location: 10671

Start: 8/21/2018 6:00:00 PM
End: 8/21/2018 7:00:00 PM
Show Time As: Tentative

Please forward as appropriate

Personal Matters / Ex. 6

Appointment

From: Anderson, Brian [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CE7D6E5AD2E94B3F8F5AC4D839A6C268-BRIAN ANDERSON]
Sent: 8/16/2018 8:54:42 PM
To: Dynner, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4cd0cdc2070545e5852c81739f765bc5-MDYNER]; Echeverria, Marietta (Echeverria.Marietta@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; shawn.finley@sol.doi.gov; Brown-Kobil, Nancy [nancy.brown-kobil@sol.doi.gov]; Miller, Wynne (Miller.Wynne@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]
Subject: Discuss interpretation of the action and defining the action area for pesticide effects determinations
Attachments: FWS_EPA_ActionArea_Issue 08.16.2018_FWS comments v2.docx
Location: 10671

Start: 8/21/2018 6:00:00 PM
End: 8/21/2018 7:00:00 PM
Show Time As: Tentative

Please forward as appropriate

Appointment

From: Anderson, Brian [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CE7D6E5AD2E94B3F8F5AC4D839A6C268-BRIAN ANDERSON]
Sent: 8/16/2018 8:41:16 PM
To: Dynner, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4cd0cdc2070545e5852c81739f765bc5-MDYNER]; Echeverria, Marietta (Echeverria.Marietta@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; shawn.finley@sol.doi.gov; Brown-Kobil, Nancy [nancy.brown-kobil@sol.doi.gov]; Miller, Wynne (Miller.Wynne@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]
Subject: Discuss interpretation of the action and defining the action area for pesticide effects determinations
Attachments: FWS_EPA_ActionArea_Issue 08.16.2018_FWS comments v2.docx
Location: 10671

Start: 8/21/2018 7:00:00 PM
End: 8/21/2018 8:00:00 PM
Show Time As: Tentative

Please forward as appropriate

Message

From: Anderson, Brian [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CE7D6E5AD2E94B3F8F5AC4D839A6C268-BRIAN ANDERSON]
Sent: 2/22/2018 10:27:08 PM
To: Panger, Melissa (Panger.Melissa@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3ae9780510d84f499c8465fb70de5cda-Melissa Panger]; Garber, Kristina (Garber.Kristina@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c4fbfbf6569041f4bd559765e027aa31-Kristina Garber]; Rossmeisl, Colleen (Rossmeisl.Colleen@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6b18311c740a4535907e690aca5f5924-Rossmeisl,]; Connolly, Jennifer (Connolly.Jennifer@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c807828d47064f349fc01c6cdcd4fa94-Connolly, J]; Lennartz, Steven (Lennartz.Steven@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e2ca08d6125846bea998f4a27afb7aee-Lennartz, S]; Eckel, William (Eckel.William@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8adc2f9386674e30849b988c45dbbd1e-William Eckel]; White, Katrina [White.Katrina@epa.gov]; Peck, Charles (Peck.Charles@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0cbc0cec2936457ea649fcd45eb1910c-Peck, Charles]
Subject: FW: Final Agenda, Parking and Shuttle Information
Attachments: Directions_USFWS_Headquarters and parking (1).pdf; HQ VisitorInfoPacket_Pesticides Use & Usage Meeting 2018-02-26.docx; SkylineShuttleBallstonPickup with added info 20180222.pptx; MIB to Skyline Shuttle Schedule.docx; Pesticide Usage Meeting Agenda _2_21_2018 final .docx

From: Ashfield, Patrice [mailto:patrice_ashfield@fws.gov]
Sent: Thursday, February 22, 2018 4:28 PM
To: Ashley Stilson <ashley_stilson@fws.gov>; Aubrey, Craig <craig_aubrey@fws.gov>; Anderson, Brian <Anderson.Brian@epa.gov>; cathy.tortorici@noaa.gov; Sims, Diann <Sims.Diann@epa.gov>; Shultz, Gina <gina_shultz@fws.gov>; Guilaran, Yu-Ting <Guilaran.Yu-Ting@epa.gov>; Echeverria, Marietta <Echeverria.Marietta@epa.gov>; Villanueva, Philip <Villanueva.Philip@epa.gov>; Sheryl Kunickis <Sheryl.Kunickis@osec.usda.gov>; Perry, Tracy <Perry.Tracy@epa.gov>
Subject: Final Agenda, Parking and Shuttle Information

Dear All-

Pls forward to your folks. This information will also be attached to our calendar invite. Remember to check in with the guards for a visitor badge.

Thanks. See you Monday!

Patrice M. Ashfield
Branch Chief for National Pesticide Consultations
Headquarters, Fish and Wildlife Service
5275 Leesburg Pike, MS:ES
Falls Church, VA 22041
(703) 358-2478 office

Directions to USFWS Headquarters
Skyline Technology Center
5275 Leesburg Pike, Falls Church, VA 22041-3803

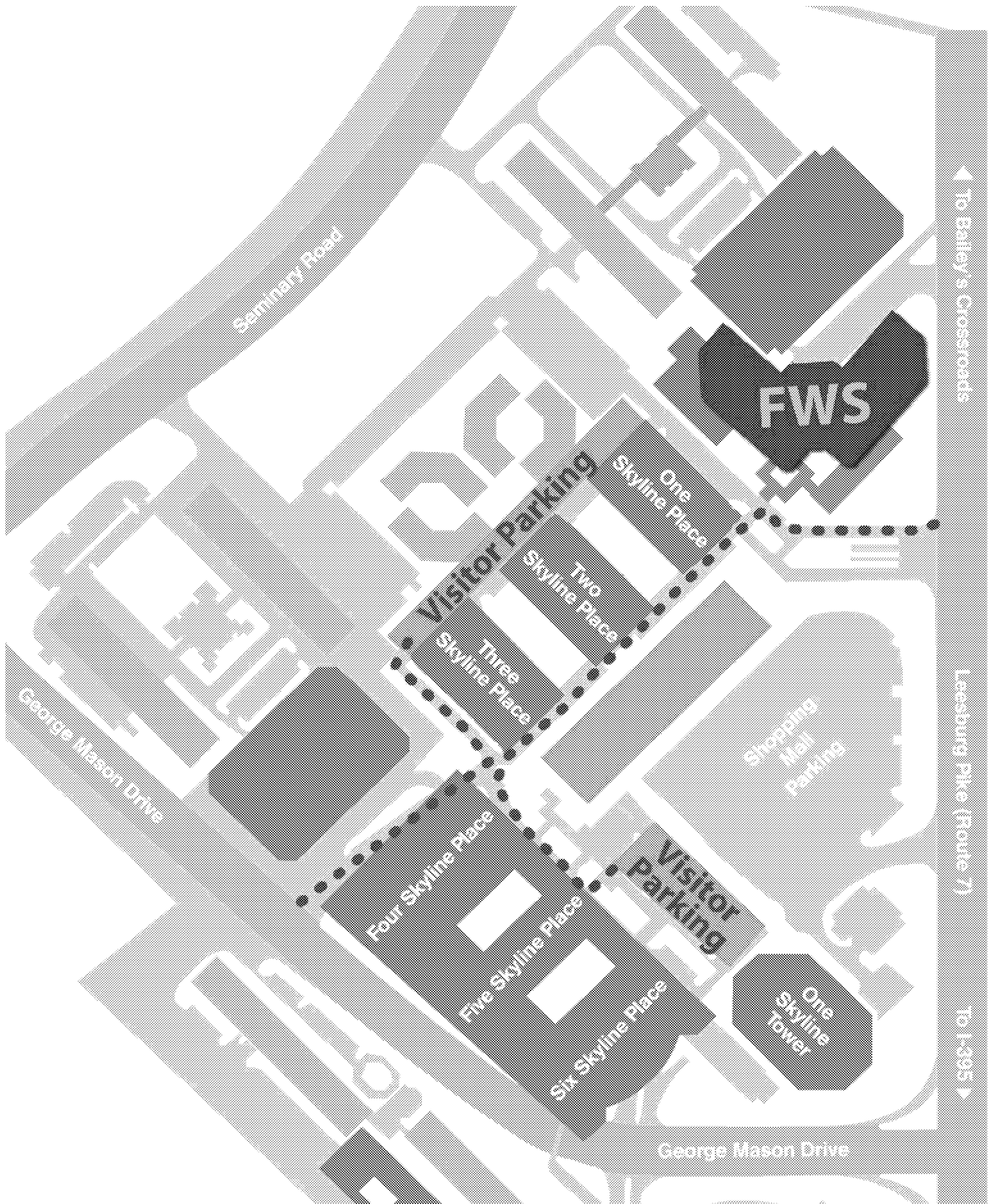
From I-395 (N or S)

- Take 395 (Henry G. Shirley Memorial Hwy) to Exit 5 (VA-7 W/King St) in Virginia.
- Take exit 5 (VA-7 W/King St) from 395
- Continue on VA-7 W/King St for about 1.6 miles until you cross over S. George Mason Drive.
- After crossing S. George Mason Drive, you will see a Target on your left.
- Skyline Technology Center is on the left, right after the Target, and can be accessed from the next two lights.

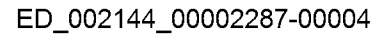
From Tyson's Corner

- Take exit #50A-B/US-50/US-29/Arlington Blvd/Lee Hwy/Fairfax/Arlington onto Arlington Blvd (US-50 E)
- Bear right toward VA-338/Falls Church/VA-7/Alexandria
- Continue on Arlington Blvd
- Bear right onto Leesburg Pike (VA-7 E) toward Alexandria
- Your destination on Leesburg Pike (VA-7 E) is on the right.

Visitor / Daily Parking: Visitor / daily parking is located in the surface parking lots behind 5205-5203-5201 Leesburg Pike or in front of 5111-5109 Leesburg Pike. The cost is \$5 for the first hour and \$10 for the first two hours. After two hours, the cost is the daily maximum of \$20.





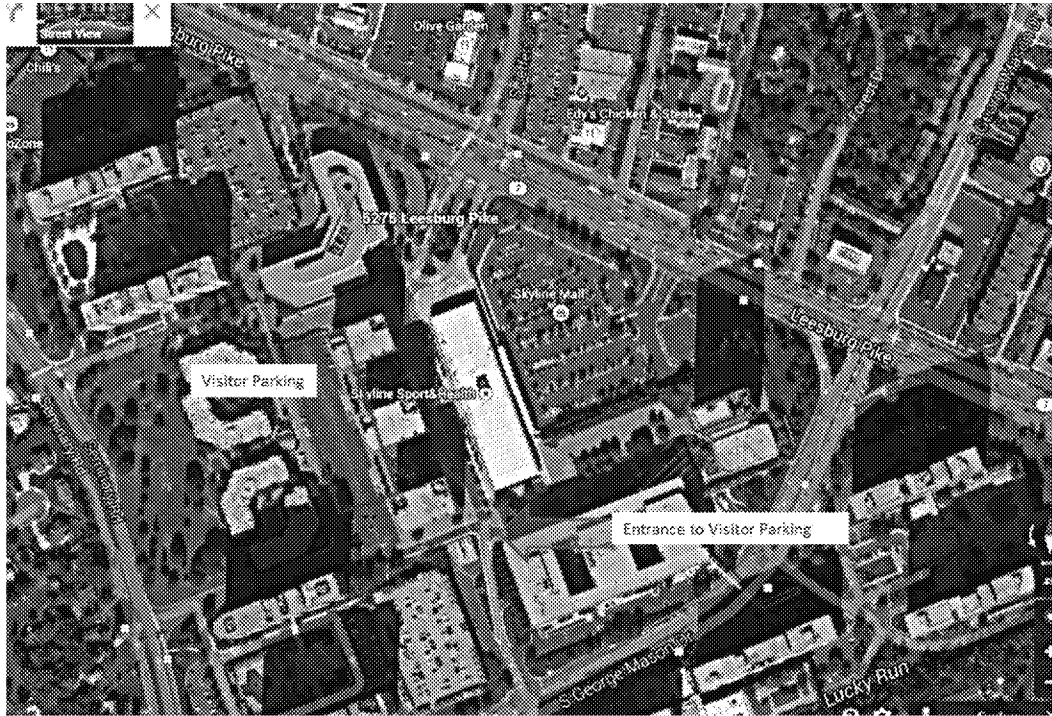


Use and Usage Pesticides Meeting

Visitor Information

February 2018

U.S. Fish and Wildlife (FWS, Service) Headquarters building is located at 5275 Leesburg Pike, Falls Church, VA 22041. The Headquarters building can be accessed from two major roads (Leesburg Pike / Route 7 and S. George Mason Drive). Visitor parking is next to HQ and costs \$20 per day. HQ is also accessible by public transportation and shuttle. A free shuttle service runs from Ballston, close to our previous Arlington Square location.



Directions to Visitor Parking

From Leesburg Pike:

- Turn south onto S. Jefferson Street and go UP the middle ramp (the 5275 building will be straight ahead).
- Turn left in front of the Subway restaurant and follow the signs to visitor parking.
- Turn right into visitor parking lot.

From S. George Mason Drive:

- Turn north at the light where there's a sign by the side of the road that says Skyline Office Complex and Visitor Parking. If you're coming south on George Mason, it's a right at the second light after crossing Leesburg Pike. If you're coming north from Seminary Road, it's a left at the first light.
- Go UP the ramp and then turn left into the visitor parking lot.

Visitor / Daily Parking is located in the surface parking lots behind 5205-5203-5201 Leesburg Pike or in front of 5111-5109 Leesburg Pike. The cost is \$5 for the first hour and \$10 for the first two hours. After two hours, the cost is the daily maximum of \$20.

Entering the Building

Visitors must be screened prior to accessing FWS Headquarters space and escorted to the conference room.

- a. Please arrive at least 10 minutes early.
- b. Visitors must check in with the guard stationed at the front desk in the building lobby and complete required x-ray and / or magnetometer screening. A Fish and Wildlife Service employee will be on standby to escort guests to the conference room.
- c. If any visitor is legally armed as part of his / her official position (i.e., OLE personnel), the visitor must clearly indicate this to the FPS guards upon check in. Please notify the event organizers in advance if this is the case (provide your name and reason for bringing firearm into the building) so they can notify the guards.



U.S. Fish and Wildlife Headquarters "Neighborhood" Amenities Map

This listing does not imply an advertisement or endorsement of these establishments



- ★ U.S. Fish and Wildlife Headquarters
- Restaurants
- Services
- ▲ Shopping

Neighborhood amenities listed as "off map" on the following pages are further north on Leesburg Pike

Last Updated 7/15/2014

U.S. Fish and Wildlife Headquarters

Local Restaurants

This listing does not imply an advertisement or endorsement of these establishments

Walking Distance

- A** Fresh Chop Chop Café
- B** **C** Subway (The Subway in location "B" has closed)
- D** The Perfect Pita
- E** Quiznos
- F** Einstein Bros Bagels
- G** Starbucks
- H** CiCi's Pizza
- I** Olive Garden and next door is Long Horn Steakhouse
- J** Great American Steak & Buffet
- K** Z Kabob
- L** Bamboo Buffet
- M** Dairy Queen
- N** Pho Golden Star
- O** Edy's Chicken & Steak Restaurant

- P** Chili's Grill & Bar
- Q** The Chicken Place
- R** Vocelli Pizza

New Restaurants in Skyline 7 Building:

- Paneras
- Buffalo Wildwings
- District Taco

Driving Distance

- S** Athens Restaurant
- T** City Diner
- U** Bamain Restaurant
- V** Panera **** Off Map**
- W** Qdoba **** Off Map**

Last Updated 7/15/2014

U.S. Fish and Wildlife Headquarters

Local Services

This listing does not imply an advertisement or endorsement of these establishments

Walking Distance

- 1 Capital One Bank
- 2 FedEx
- 3 CVS Pharmacy
- 4 Verizon Wireless
- 5 PNC Bank
- 6 Bailey's Cleaners
- 7 Hour Eyes
- 8 Advanced AutoParts
- 9 AutoZone

Last Updated 7/15/2014

U.S. Fish and Wildlife Headquarters

Local Shopping

This listing does not imply an advertisement or endorsement of these establishments

Walking Distance

-  Target
-  Home Goods
-  World Market
-  Office Depot
-  Burlington Coat Factory
-  Giant Supermarket
-  Party Depot

Driving Distance

-  Designer Shoe Warehouse
-  Babies 'R' Us
-  Toys 'R' Us
-  Tuesday Morning
-  Party City
-  Best Buy **** Off Map**
-  Trader Joe's **** Off Map**
-  Bed, Bath, & Beyond **** Off Map**
-  Ross Dress for Less **** Off Map**
-  Marshalls **** Off Map**
-  Dick's Sporting Goods **** Off Map**

Last Updated 7/15/2014

Visitors may use the shuttles to / from FWS Headquarters that run from the Main Interior Building to Farragut North Metro station, and Skyline. Drivers check riders' IDs when boarding shuttles departing from FWS Headquarters to the Main Interior Building and Farragut North Metro stop. Visitors without a DOI PIV card must have an email from their host program in order to ride these shuttles.

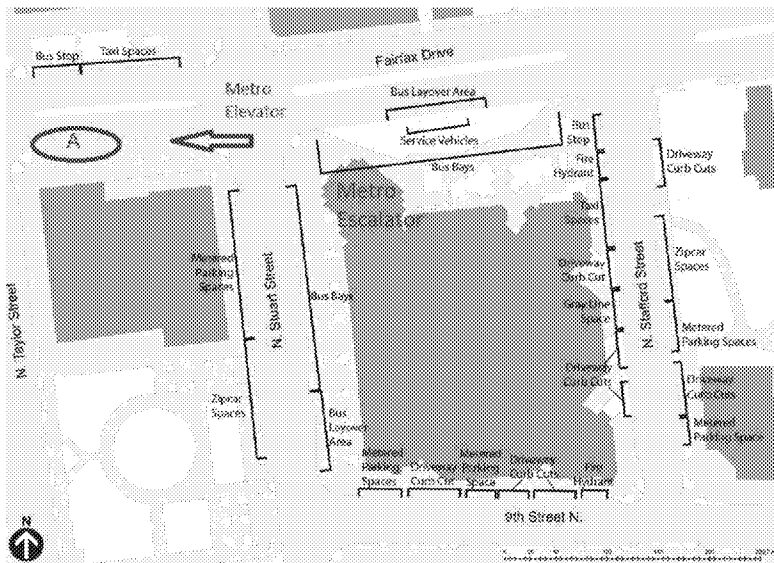
Main Interior Building Shuttle Schedule

Filter: ▼

Bus	MIB 18th & C	Farragut N. Metro	Skyline Seven 5275 Leesburg Pike
Bus 1			7:25 AM First pickup Bus 1 Service
Bus 2	7:25 AM	7:35 AM	7:55 AM
Bus 1	7:55 AM		8:25 AM
Bus 2	8:25 AM	8:35 AM	8:55 AM
Bus 1	8:55 AM		9:25 AM
Bus 2	9:25 AM		9:55 AM
Bus 1	9:55 AM		10:25 AM
Bus 2	10:25 AM		10:55 AM
Bus 1	10:55 AM Drop only		Lunch
Bus 2	11:35 AM		11:55 AM
Bus 1	11:55 AM Pickup only		12:25 PM
Bus 2	12:25 PM Drop only		Lunch
Bus 1	12:55 PM		1:25 PM
Bus 2	1:25 PM Pickup only		1:55 PM

Bus 1	1:55 PM		2:25 PM
Bus 2	2:25 PM		2:55 PM
Bus 1	2:55 PM		3:25 PM
Bus 2	3:25 PM		4:05 PM
Bus 1	3:55 PM		4:35 PM
Bus 2	4:30 PM	4:40 PM	5:10 PM
Bus 1	5:05 PM		5:35 PM
Bus 2	5:30 PM	5:40 PM	6:10 PM
Bus 1	6:05 PM		6:35 PM
Bus 2	6:30 PM	6:40 PM	7:10 PM
			Drop only - End of Bus 2 service
Bus 1	7:05 PM		
	Drop only - End of Bus 1 service		

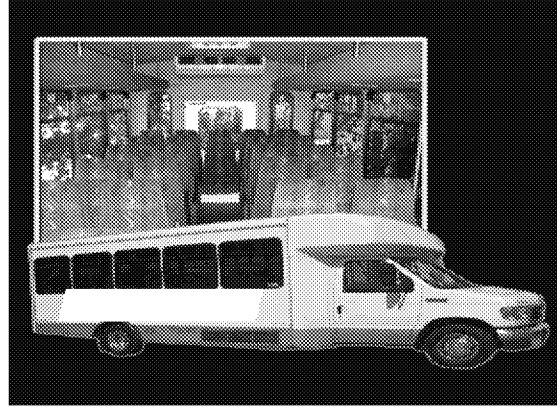
SKYLINE SHUTTLE BUS RIDERS



Beginning Monday, July 13, all Skyline Shuttle Buses will pick up and drop off at the "A" Shuttle Bus Bay located on Fairfax Drive.

Bay A: Skyline Shuttle Stop

Skyline Shuttle Buses



Please look for a blue "Skyline Metro Shuttle" or the white "Chariots for Hire" shuttle. FYI: There are multiple shuttle services that utilize this drop off and pick up location (including at least one other that also utilizes "Chariots for Hire" vans). Please ask the shuttle driver as you board to make sure it is going to the Skyline Building complex.

The Ballston Skyline Shuttle service stops at two locations in the Skyline Complex:

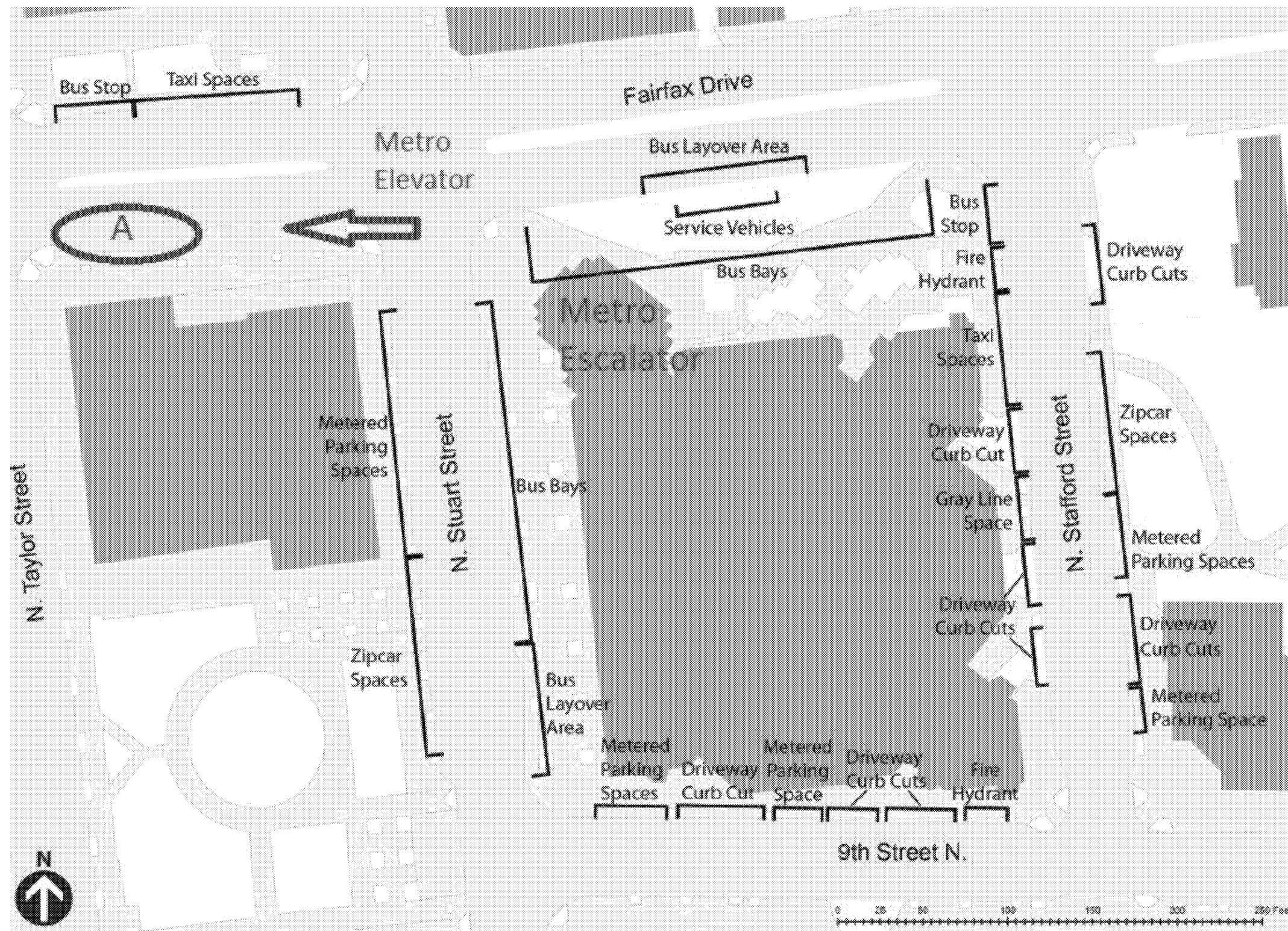
- Skyline Building 4
- Skyline Building 7 (FWS HQ)



Skyline Shuttle Schedule

See the location below	Northbound (towards Bay St. Transit)	Southbound (towards Bay St. Transit)
	5:55 AM Initial Pick-Up	6:25 AM
	6:15 AM	6:45 AM
	6:30 AM	6:55 AM
	6:45 AM	7:10 AM
	7:00 AM	7:25 AM
	7:15 AM	7:40 AM
	7:30 AM	7:55 AM
	7:45 AM	8:10 AM
	8:00 AM	8:25 AM
	8:15 AM	8:40 AM
	8:30 AM	8:55 AM
	8:45 AM	9:10 AM
	Drop Only	Drop Only
	9:00 AM	9:25 AM
	9:30 AM	9:55 AM
	10:00 AM	10:25 AM
	10:30 AM	10:55 AM
	11:00 AM	11:25 AM
	11:30 AM	11:55 AM
	12:00 PM	12:25 PM
	12:30 PM	12:55 PM
	1:00 PM	1:25 PM
	1:30 PM	1:55 PM
	2:00 PM	2:25 PM
	2:30 PM	2:55 PM
	3:00 PM	3:25 PM
	3:30 PM	3:55 PM
	3:45 PM	4:10 PM
	4:00 PM	4:25 PM
	4:15 PM	4:40 PM
	4:30 PM	4:55 PM
	4:45 PM	5:10 PM
	5:00 PM	5:25 PM
	5:15 PM	5:40 PM
	5:30 PM	5:55 PM
	5:45 PM	6:10 PM
	6:00 PM	6:25 PM
	6:15 PM Drop Only	
	6:30 PM Drop Only	
	6:45 PM Drop Only	

SKYLINE SHUTTLE BUS RIDERS



Beginning Monday, July 13, all Skyline Shuttle Buses will pick up and drop off at the “A” Shuttle Bus Bay located on Fairfax Drive.

Bay A: Skyline Shuttle Stop

Message

From: Geoff Brosseau [geoff@brosseau.us]
Sent: 7/24/2018 1:19:10 PM
To: Perry, Tracy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ffd9b082a6484fe8a70cade93a68466c-Tracy L Perry]
CC: Keigwin, Richard [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=151baabb6a2246a3a312f12a706c0a05-Richard P Keigwin Jr]; Guilaran, Yu-Ting [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a698774e93e34a2b9c181d4b3032b8a32-ytguilar]; Costello, Kevin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a75e8c935c7e4f439f5a26b54ca0caf8-Kevin John Costello]; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; Panger, Melissa [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3ae9780510d84f499c8465fb70de5cda-Melissa Panger]; Miller, Wynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; Becker, Jonathan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=cc74340798e549a1b3e20bd8bcc233da-Jonathan Becker]; Sawyers, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=49214552a00b4ab7b168ec0edba1d1ac-Sawyers, Andrew]; Nagle, Deborah [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33888a2bbe8f48aeb4ad9cc54259fb4e-dnagle]; Torres, Tomas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8b2f42bb7a684e199190092e3a2e7520-TTORRES]; Denton, Debra [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c1259d4593b44c5a734aac847d047f2-DDENTON]; Bromley, Eugene [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=17f71e77a97e4d82a6623e3063633135-EBROMLEY]; Foresman, Erin (Seperated 10/10/17) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ed6eab1930a34b519d1a3ae4269839fe-EFORESMA]; TenBrook, Patti [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=49b610301327490789dc3902e3b87229-PTENBROO]; donna.wieting@noaa.gov; cathy.tortorici@noaa.gov [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1bdaaff0c14a4264abc82f1468af694d-cathy.tortorici@noaa.gov]; tony.hawkes@noaa.gov; Gina_Schultz@fws.gov; Patrice Ashfield [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user1f5a6e17]; Nancy Golden [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=usereab69076]; George Noguchi [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userbe760c8b]; Jodi.Pontureri@waterboards.ca.gov; Karen Mogus [Karen.Mogus@waterboards.ca.gov]; Paul Hann [Paul.Hann@waterboards.ca.gov]; Matt Freese [Matthew.Freese@waterboards.ca.gov]; Tom Mumley [Thomas.Mumley@waterboards.ca.gov]; Janet O'Hara [JOhara@waterboards.ca.gov]; Daniel McClure [dmccclure@waterboards.ca.gov]; Peter Meertens [Peter.Meertens@waterboards.ca.gov]; Nan Singhasemanon [nsinghasemanon@cdpr.ca.gov]; Jennifer Teerlink [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=437cb6b233484971bc89c771423a0633-Jennifer Te]; Polo.Moreno@cdpr.ca.gov; Scott.Wagner@cdpr.ca.gov; Chris Hornback [chornback@nacwa.org]; Cynthia Finley [cfinley@nacwa.org]; Scott Taylor [staylor@mbakerintl.com]; Karen Cowan [karen@karencowan.com]
Subject: CASQA Comments on the NMFS Biological Opinion on Malathion
Attachments: CASQA Comments on NMFS Biological Opinion on Malathion.pdf; CASQA Attachment 1. Factsheets for Malathion 303(d) listings.pdf; CASQA Attachment 2. Method for estimating unreported pesticide use..pdf; CASQA Attachment 3. CDPR SURF Malathion data.xlsx; CASQA Attachment 4. Malathion product use summaries and concentrations, struct....pdf

Ms. Perry:

Attached please find comments from the California Stormwater Quality Association (CASQA) on the NMFS Biological Opinion on Malathion. These comments have already been submitted timely to the e-docket.

Thank you,

Geoff Brosseau

Geoff Brosseau
Executive Director
California Stormwater Quality Association (CASQA)
P.O. Box 2105
Menlo Park, CA 94026-2105
650-366-1042 (Voicemail)
650-365-8620 (Direct)
info@casqa.org
www.casqa.org

CASQA is a 501(c)(3) non-profit organization dedicated to the advancement of stormwater quality management, science, and regulation.

DECISION ID	53855	Region 5
Willow Slough Bypass (Yolo County)		

Pollutant:	Malathion
Final Listing Decision:	List on 303(d) list (TMDL required list)
Last Listing Cycle's Final Listing Decision:	New Decision
Revision Status	Revised
Sources:	Source Unknown
Expected TMDL	2027
Completion Date:	
Impairment from Pollutant or Pollution:	Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Three of the 19 samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section 303(d) List.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Three of 19 samples exceed the water quality objectives and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation:	After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.
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Line of Evidence (LOE) for Decision ID 53855, Malathion	Region 5
Willow Slough Bypass (Yolo County)	

LOE ID:	72450
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	None
Beneficial Use:	Cold Freshwater Habitat
Number of Samples:	19
Number of Exceedances:	3

Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed Ag Waiver data for Willow Slough Bypass (Yolo County) to determine beneficial use support and results are as follows: 3 of 19 samples exceed the criterion for Malathion.
Data Reference:	<u>Data for Various Pollutants in Sacramento Valley Water Quality Coalition, 2005-2009.</u>
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. (Water Quality Control Plan, Central Valley Region, Sacramento River Basin and San Joaquin River Basin)
Objective/Criterion Reference:	<u>Water Quality Control Plan for the California Regional Water Quality Control Board Central Valley Region, Sacramento and San Joaquin River Basins. 4th ed</u>
Evaluation Guideline:	The Basin Plan states: "Where valid testing has developed 96-hour LC50 values for aquatic organisms..., the Board will consider one tenth of this value for the most sensitive species tested as the upper limit (daily maximum) for the protection of aquatic life... or [O]ther available information on the pesticide..." Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion, 0.028 ug/L, is not exceeded more than once every three years on the average (UC Davis Aquatic Life Criterion).
Guideline Reference:	<u>OPP Pesticide Ecotoxicity Database.</u>
Spatial Representation:	Data for this line of evidence for Willow Slough Bypass (Yolo County) was collected at 2 monitoring sites [Willow Slough Bypass at Pole Line - 511XWLSPL, Willow Slough Bypass at SP - 511XWLSBP]
Temporal Representation:	Data was collected over the time period 2/10/2007-9/22/2009.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The Quality Assurance Project Plan for Sacramento Valley Water Quality Coalition was followed.
QAPP Information Reference(s):	<u>Quality Assurance Project Plan for Sacramento Valley Water Quality Coalition.</u>

DECISION ID Arcade Creek	11312	Region 5
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Pollutant: Malathion
Final Listing Decision: List on 303(d) list (TMDL required list)
Last Listing Cycle's Final Listing Decision: New Decision
Revision Status: Revised
Sources: Agriculture | Urban Runoff/Storm Sewers
Expected TMDL Completion Date: 2021
Impairment from Pollutant or Pollution: Pollutant

Conclusion: This pollutant is being considered for placement on the section 303(d) list under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status. One line of evidence is available in the administrative record to assess this pollutant. Five samples exceeded the narrative toxicity water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Five of 76 available calculated 4-day average malathion concentrations exceeded the CDFG criterion continuous concentration (CCC) for the protection of freshwater aquatic life. These exceedances occurred more than once every three years. In accordance with Section 3.11 of the Listing Policy, this water body should be placed on the 303(d) list.

RWQCB Board Staff Decision: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

SWRCB Board Staff Decision: After review of this Regional Board decision, SWRCB staff recommend the decision be approved by the State Board.

USEPA Action (if applicable): USEPA approved the listing of this water body as a water quality limited segment requiring a TMDL for this pollutant.

Line of Evidence (LOE) for Decision ID 11312, Malathion Arcade Creek	Region 5
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LOE ID: 21605
Pollutant: Malathion
LOE Subgroup: Pollutant-Water

Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	76
Number of Exceedances:	5
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Eighty water samples were collected from Arcade Creek from January 2000 through September 2005, representing seventy-six calculated 4-day average malathion concentrations and eighty 1-hour average malathion concentrations. Five of the seventy-six calculated 4-day average malathion concentrations exceeded the recommended 4-day CCC for malathion of 0.1 ug/L. Zero of the eighty 1-hour average malathion concentrations exceeded the 1-hour average CMC for malathion of 0.43 ug/L.
Data Reference:	<u>Surface Water database (SWDB) for Central Valley waterbodies, 2000-2005</u> <u>Correspondence between the Department of Pesticide Regulation and Central Valley Regional Water Quality Control Board regarding water quality data for waterbodies in the Central Valley</u>
Water Quality Objective/Criterion:	All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.
Objective/Criterion Reference:	<u>Water Quality Control Plan for the California Regional Water Quality Control Board Central Valley Region, Sacramento and San Joaquin River Basins, 4th ed</u> <u>Quality Criteria for Water, USEPA Office of Water and Hazardous Materials, Washington, D.C</u>
Evaluation Guideline:	The US EPA recommended 4-day average, criterion continuous concentration (CCC) is 0.1 ug/L (US EPA, 1976). The California Department of Fish and Game Hazard Assessment Criterion 1-hour average, concentration (CMC) is 0.43 ug/L (CDFG, 1998).
Guideline Reference:	<u>Hazard Assessment of the Insecticide Malathion to Aquatic Life in the Sacramento-San Joaquin River System, California Department of Fish and Game, Office of Spill Prevention and Response Administrative Report 98-2</u>
Spatial Representation:	Samples were collected from Arcade Creek at Norwood and near Del Paso Heights.
Temporal Representation:	Samples were collected at variable intervals (e.g. biweekly and monthly) from January 2000 through September 2005.
Environmental Conditions:	Arcade Creek is an urban creek in the greater Sacramento area.
QAPP Information:	Data quality: Good. Minimum requirements for the CDPR Surface Water Database are: Name of the sampling agency or organization, Date that each sample was collected, Date of each sample analysis, County where samples were taken, Detailed sampling location information (including latitude and longitude or township/range/section if available), detailed map or description of each sampling site (i.e., address, cross roads, etc.), Name or description of water body sampled, Name of the active ingredient analyzed for; concentration detected (with unit of measurement), and limit of quantitation, Description of analytical QA/QC plan, or statement that no formal plan exists.

Additional optional requirements are included on DPR's webpage at <http://www.cdpr.ca.gov/docs/emon/surfwtr/caps/req.htm>
QAPP Information Reference(s): Standard Operating Procedure for Conducting Surface Water Monitoring for Pesticides

DECISION ID	12562	Region 5
Orestimba Creek (below Kilburn Road)		

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (TMDL required list)
Last Listing Cycle's Final Listing Decision: New Decision
Revision Status: Revised
Sources: Agriculture
Expected TMDL Completion Date: 2021
Impairment from Pollutant or Pollution: Pollutant

Conclusion: This pollutant is being considered for placement on the section 303(d) list under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. Two of the samples exceed the narrative toxicity water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Two of 196 available calculated 4-day average malathion concentrations exceeded the criterion continuous concentration (CCC) for malathion more than once every three years and, in accordance with Section 3.11 of Listing Policy, this water body should be placed on the 303(d) list.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

RWQCB Board Staff Decision: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

SWRCB Board Staff Decision: After review of this Regional Board decision, SWRCB staff recommend the decision be approved by the State Board.

USEPA Action (if applicable): USEPA approved the listing of this water body as a water quality limited segment requiring a TMDL for this pollutant.

**Line of Evidence (LOE) for Decision ID 12562, Malathion
Orestimba Creek (below Kilburn Road)**

Region 5

LOE ID:	23135
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Aquatic Life Use:	Warm Freshwater Habitat
Number of Samples:	157
Number of Exceedances:	2
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	One hundred ninety-one water samples were collected from Orestimba Creek from January 2000 through September 2005, representing one hundred fifty-seven calculated 4-day average malathion concentrations and one hundred ninety-one 1-hour average malathion concentrations. Two of the one hundred fifty-seven calculated 4-day average malathion concentrations exceeded the 4-day average malathion concentration criterion of 0.1 ug/L. Zero of the one hundred ninety-one 1-hour average malathion concentrations exceeded the 1-hour average malathion criterion of 0.43 ug/L.
Data Reference:	<u>Surface Water database (SWDB) for Central Valley waterbodies, 2000-2005</u> <u>Correspondence between the Department of Pesticide Regulation and Central Valley Regional Water Quality Control Board regarding water quality data for waterbodies in the Central Valley</u>
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.
Objective/Criterion Reference:	<u>Water Quality Control Plan for the California Regional Water Quality Control Board Central Valley Region, Sacramento and San Joaquin River Basins, 4th ed</u> <u>Quality Criteria for Water, USEPA Office of Water and Hazardous Materials, Washington, D.C</u>
Evaluation Guideline:	The USEPA recommended criterion continuous concentration (CCC) for malathion is 0.1 ug/L. The California Department of Fish and Game Hazard Assessment Malathion Criterion is 0.43 ug/L for the criterion maximum concentration.
Guideline Reference:	<u>Hazard Assessment of the Insecticide Malathion to Aquatic Life in the Sacramento-San Joaquin River System, California Department of Fish and Game, Office of Spill Prevention and Response Administrative Report 98-2</u>
Spatial Representation:	Samples were collected from Orestimba Creek at River Road.
Temporal Representation:	Samples were collected at variable intervals (e.g. hourly, daily, every two weeks, and monthly) from January 2000 through September 2005.
Environmental Conditions:	

QAPP Information: Data quality: Good. Minimum requirements for the CDPR Surface Water Database are: Name of the sampling agency or organization, Date that each sample was collected, Date of each sample analysis, County where samples were taken, Detailed sampling location information (including latitude and longitude or township/range/section if available), detailed map or description of each sampling site (i.e., address, cross roads, etc.), Name or description of water body sampled, Name of the active ingredient analyzed for, concentration detected (with unit of measurement), and limit of quantitation. Description of analytical QA/QC plan, or statement that no formal plan exists. Additional optional requirements are included on DPR's webpage at <http://www.cdpr.ca.gov/docs/emon/surfwtr/caps/req.htm>

QAPP Information Reference(s): Standard Operating Procedure for Conducting Surface Water Monitoring for Pesticides

Line of Evidence (LOE) for Decision ID 12562, Malathion Orestimba Creek (below Kilburn Road)	Region 5
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LOE ID:	23136
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Aquatic Life Use:	Warm Freshwater Habitat
Number of Samples:	39
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Thirty-nine water samples were collected from Orestimba Creek from July 2004 through August 2006, representing thirty-nine calculated 4-day average malathion concentrations and thirty-nine 1-hour average malathion concentrations. Zero of the thirty-nine calculated 4-day average malathion concentrations exceeded the 4-day average CMC for malathion (0.43 ug/L). Zero of the thirty-nine 1-hour average malathion concentrations exceeded the 1-hour average CCC for malathion (0.1 ug/L).
Data Reference:	<u>Revised Draft of the 2007 Review of the Monitoring Data for the Irrigated Lands Regulatory Conditional Waiver Program Monitoring and Reporting Program, Order Nos. R5-2003-0826, R5-2005-0833, and R5-2008-0005 for Coalition Groups Under Resolution No. R5-2003-0105, Conditional Waiver of Waste Discharge Requirements for Discharges From Irrigated Lands Within the Central Valley Region</u>
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.
Objective/Criterion Reference:	<u>Water Quality Control Plan for the California Regional Water Quality Control Board Central Valley Region, Sacramento and San Joaquin River Basins. 4th ed</u>

Quality Criteria for Water. USEPA Office of Water and Hazardous Materials. Washington, D.C

Evaluation Guideline: The USEPA recommended criterion continuous concentration (CCC) for malathion is 0.1 ug/L. The California Department of Fish and Game Hazard Assessment Malathion criterion maximum concentration (CMC) is 0.43 ug/L.

Guideline Reference: Hazard Assessment of the Insecticide Malathion to Aquatic Life in the Sacramento-San Joaquin River System. California Department of Fish and Game. Office of Spill Prevention and Response Administrative Report 98-2

Spatial Representation: Samples were collected from Orestimba Creek at River Road, at Kilburn Road, and at Highway 33.

Temporal Representation: Samples were collected at monthly interval from July 2004 through August 2006.

Environmental Conditions:
QAPP Information: Data quality: Good. Monitoring was conducted in accordance with Central Valley Water Board Monitoring and Reporting Program (order number R5-2003-0826) requirements (CVRWQCB, 2003)

QAPP Information Reference(s):

DECISION ID	6645	Region 5
Colusa Basin Drain		

Pollutant: Malathion

Final Listing Decision: List on 303(d) list (TMDL required list)

Last Listing Cycle's Final Listing Decision: List on 303(d) list (TMDL required list)(2006)

Revision Status Original

Sources: Agriculture

Expected TMDL 2010

Completion Date:

Impairment from Pollutant or Pollution: Pollutant

Conclusion: 303(d) listing decisions made prior to 2006 were not held in an assessment database. The Regional Boards will update this decision when new data and information become available and are assessed.

RWQCB Board Staff Decision: No new data were assessed for 2008. The Regional Board will update this decision when new data and information become available and are assessed.

SWRCB Board Staff Decision: After review of this Regional Board decision, SWRCB staff recommend the decision be approved by the State Board.

USEPA Action (if applicable): USEPA approved the listing of this water body as a water quality limited segment requiring a TMDL for this pollutant.

Line of Evidence (LOE) for Decision ID 6645, Malathion	Region 5
Colusa Basin Drain	

LOE ID: 4300

Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Not Recorded
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	0
Number of Exceedances:	0
Data and Information Type:	Not Specified
Data Used to Assess Water Quality:	Unspecified--This LOE is a placeholder to support a 303(d) listing decision made prior to 2006.
Data Reference:	<u>Placeholder reference pre-2006 303(d)</u>
Water Quality Objective/Criterion:	Unspecified
Objective/Criterion Reference:	<u>Placeholder reference pre-2006 303(d)</u>
Evaluation Guideline:	Unspecified
Guideline Reference:	<u>Placeholder reference pre-2006 303(d)</u>
Spatial Representation:	Unspecified
Temporal Representation:	Unspecified
Environmental Conditions:	Unspecified
QAPP Information:	Unspecified
QAPP Information Reference(s):	

DECISION ID	47019	Region 3
Bradley Channel		

Pollutant:	Malathion
Final Listing Decision:	List on 303(d) list (being addressed by USEPA approved TMDL)
Last Listing Cycle's Final Listing Decision:	New Decision
Revision Status	Revised
Sources:	Agriculture
TMDL Name:	Santa Maria River Watershed Toxicity and Pesticides TMDL
TMDL Project Code:	1081
Date TMDL Approved by USEPA:	08/31/2015
Impairment from Pollutant or Pollution:	Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Nine lines of evidence are available in the administrative record to assess this pollutant. Three of the 6 samples exceed the evaluation guideline (Palumbo, A.J. et al., 2012) used to interpret the narrative water quality objective for aquatic life. Zero of the 6 samples exceed the USEPA drinking water health advisory level. A minimum of 16 samples is needed to determine if a beneficial use is supported and a minimum of two exceedances is needed to determine if beneficial uses are not supported using table 3.1. Therefore, the use support rating is set to 'insufficient information' for the municipal supply beneficial use.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section 303(d) List. In accordance with section 2.2 of the Policy, there is sufficient justification to place it in the Being Addressed portion of the CWA 303(d) List because a TMDL has been completed and approved by RWQCB and USEPA, and is expected to result in attainment of the standard.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Three of the 6 samples exceed the evaluation guideline (Palumbo, A.J. et al., 2012) used to interpret the narrative water quality objective for aquatic life and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. The Santa Maria River Watershed Toxicity and Pesticide TMDL has been approved by USEPA on August 31, 2015.
5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation:

After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

There is sufficient justification to place it in the Being Addressed portion of the CWA 303(d) List because a TMDL has been completed and approved by RWQCB and USEPA, and is expected to result in attainment of the standard.

**Line of Evidence (LOE) for Decision ID 47019, Malathion
Bradley Channel**

Region 3

LOE ID:	53663
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Municipal & Domestic Supply
Number of Samples:	3
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Bradley Channel to determine beneficial use support and results are as follows: None of the three samples exceed the criterion for Malathion.
Data Reference:	Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	The USEPA drinking water health advisory for malathion is 500 Åµg/L.
Guideline Reference:	2011 Edition of the Drinking Water Standards and Health Advisories
Spatial Representation:	Data for this line of evidence for Bradley Channel was collected at 1 monitoring site [Bradley Channel at Jones - 312BCJ].
Temporal Representation:	Data was collected over the time period 2/13/2007-9/25/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format. The QAPP was provided.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 47019, Malathion

Region 3

Bradley Channel

LOE ID: 53664

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Municipal & Domestic Supply

Number of Samples: 2
Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: Water Board staff assessed CMP data for Bradley Channel to determine beneficial use support and results are as follows: 0 of 2 samples exceed the criterion for Malathion.
Data Reference: [Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: The USEPA drinking water health advisory for malathion is 500 Åµg/L.
Guideline Reference: [2011 Edition of the Drinking Water Standards and Health Advisories](#)

Spatial Representation: Data for this line of evidence for Bradley Channel was collected at 1 monitoring site [Bradley Channel - 312BCJ]

Temporal Representation: Data was collected over the time period 8/22/2006-9/26/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information: All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.

QAPP Information Reference(s): [Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6](#)

Line of Evidence (LOE) for Decision ID 47019, Malathion**Region 3****Bradley Channel**

LOE ID: 53665

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Municipal & Domestic Supply

Number of Samples: 1
Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING

Data Used to Assess Water Quality:	Water Board staff assessed TMDL Project data for Bradley Channel to determine beneficial use support and results are as follows: 0 of 1 samples exceed the criterion for Malathion. An arithmetic mean is calculated when replicates, such as field duplicates, are reported. If a non-detect is one of the results, then one half the reporting limit is used in this calculation.
Data Reference:	Data from Santa Maria River Watershed and Oso Flaco Creek Watershed TMDL Monitoring Study
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Water Quality Control Plan, Central Coast Basin, Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	The USEPA drinking water health advisory for malathion is 500 Åµg/L.
Guideline Reference:	2011 Edition of the Drinking Water Standards and Health Advisories
Spatial Representation:	Data for this line of evidence for Bradley Channel was collected at 1 monitoring site [Bradley Channel at River Oaks - 312BRO]
Temporal Representation:	Data was collected on a single day 6/10/2009.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	Sampling and analysis was conducted following the SWAMP QAPP 2008.
QAPP Information Reference(s):	Surface Water Ambient Monitoring Program Quality Assurance Program Plan

Line of Evidence (LOE) for Decision ID 47019, Malathion

Region 3

Bradley Channel

LOE ID:	53666
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	3
Number of Exceedances:	1
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Bradley Channel to determine beneficial use support and results are as follows: One of three samples exceed the criterion for Malathion.
Data Reference:	Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Bradley Channel was collected at 1 monitoring site [Bradley Channel at Jones - 312BCJ].
Temporal Representation:	Data was collected over the time period 2/13/2007-9/25/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information: The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format. The QAPP was provided.

QAPP Information Reference(s): [Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6](#)

Line of Evidence (LOE) for Decision ID 47019, Malathion
Bradley Channel

Region 3

LOE ID: 53667

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Cold Freshwater Habitat

Number of Samples: 3
Number of Exceedances: 1

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: State Water Board staff assessed CMP data for Bradley Channel to determine beneficial use support and results are as follows: One of three samples exceed the criterion for Malathion.

Data Reference: [Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.

Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.

Guideline Reference: [Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216: 1-48.](#)

Spatial Representation: Data for this line of evidence for Bradley Channel was collected at 1 monitoring site [Bradley Channel at Jones - 312BCJ]

Temporal Representation: Data was collected over the time period 2/13/2007-9/25/2007.

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information: The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data, following the QAPP for that program and provided in SWAMP format.

QAPP Information Reference(s): [Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6](#)

Line of Evidence (LOE) for Decision ID 47019, Malathion
Bradley Channel

Region 3

LOE ID: 53668

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Warm Freshwater Habitat

Number of Samples: 2
Number of Exceedances: 2

Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed CMP data for Bradley Channel to determine beneficial use support and results are as follows: 2 of 2 samples exceed the criterion for Malathion.
Data Reference:	Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Bradley Channel was collected at 1 monitoring site [Bradley Channel - 312BCJ]
Temporal Representation:	Data was collected over the time period 8/22/2006-9/26/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 47019, Malathion

Region 3

Bradley Channel

LOE ID:	53669
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Cold Freshwater Habitat
Number of Samples:	2
Number of Exceedances:	2
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed CMP data for Bradley Channel to determine beneficial use support and results are as follows: 2 of 2 samples exceed the criterion for Malathion.
Data Reference:	Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely

Objective/Criterion Reference:	affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries). Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Bradley Channel was collected at 1 monitoring site [Bradley Channel - 312BCJ]
Temporal Representation:	Data was collected over the time period 8/22/2006-9/26/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 47019, Malathion
Bradley Channel

Region 3

LOE ID:	53670
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	1
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed TMDL Project data for Bradley Channel to determine beneficial use support and results are as follows: 0 of 1 samples exceed the criterion for Malathion. An arithmetic mean is calculated when replicates, such as field duplicates, are reported. If a non-detect is one of the results, then one half the reporting limit is used in this calculation.
Data Reference:	Data from Santa Maria River Watershed and Oso Flaco Creek Watershed TMDL Monitoring Study
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Water Quality Control Plan, Central Coast Basin, Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Bradley Channel was collected at 1 monitoring site [Bradley Channel at River Oaks - 312BRO]
Temporal Representation:	Data was collected on a single day 6/10/2009.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information: Sampling and analysis was conducted following the SWAMP QAPP 2008.
QAPP Information Reference(s): [Surface Water Ambient Monitoring Program Quality Assurance Program Plan](#)

Line of Evidence (LOE) for Decision ID 47019, Malathion

Region 3

Bradley Channel

LOE ID: 53671

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Cold Freshwater Habitat

Number of Samples: 1
Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: Water Board staff assessed TMDL Project data for Bradley Channel to determine beneficial use support and results are as follows: 0 of 1 samples exceed the criterion for Malathion. An arithmetic mean is calculated when replicates, such as field duplicates, are reported. If a non-detect is one of the results, then one half the reporting limit is used in this calculation.

Data Reference: [Data from Santa Maria River Watershed and Oso Flaco Creek Watershed TMDL Monitoring Study](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Water Quality Control Plan, Central Coast Basin, Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.

Guideline Reference: [Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.](#)

Spatial Representation: Data for this line of evidence for Bradley Channel was collected at 1 monitoring site [Bradley Channel at River Oaks - 312BRO]

Temporal Representation: Data was collected on a single day 6/10/2009.

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information: Sampling and analysis was conducted following the SWAMP QAPP 2008.

QAPP Information Reference(s): [Surface Water Ambient Monitoring Program Quality Assurance Program Plan](#)

DECISION ID	47191	Region 3
Chualar Creek		

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (TMDL required list)
Last Listing Cycle's Final Listing Decision: New Decision
Revision Status: Revised
Sources: Source Unknown
Expected TMDL Completion Date: 2027
Impairment from Pollutant or Pollution: Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. Three of the 3 samples exceed the evaluation guidelines (Palumbo et al., 2012), set to protect aquatic life. Zero of the 16 samples exceed the USEPA drinking water life-time health advisory level for drinking water criteria).

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section 303(d) List in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Three of the 3 samples exceed the evaluation guidelines (Palumbo et al., 2012), set to protect aquatic life and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Line of Evidence (LOE) for Decision ID 47191, Malathion	Region 3
Chualar Creek	

LOE ID: 54058

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Cold Freshwater Habitat

Number of Samples: 3
Number of Exceedances: 3

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: Water Board staff assessed DPR data for Chualar Creek to determine beneficial use support. Sixteen samples were collected and three of those sample results exceeded the guideline, however the remaining thirteen samples were non-detect and the laboratory method detection limit was above the guideline, therefore the results could not be quantified with the level of certainty required by the Listing Policy.

Data Reference:	Final Data File used for assessment: Department of Pesticide Regulation Data, 2003-2005
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Chualar Creek was collected at 1 monitoring site [Chualar Creek - 309CRR]
Temporal Representation:	Data was collected over the time period 6/16/2003-9/29/2003.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	All data was collected and analyzed following Department of Pesticide Regulation Standard Operating Procedures (Available online at http://www.cdpr.ca.gov/docs/emon/pubs/sop.htm).
QAPP Information Reference(s):	

Line of Evidence (LOE) for Decision ID 47191, Malathion

Region 3

Chualar Creek

LOE ID:	54057
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	3
Number of Exceedances:	3
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed DPR data for Chualar Creek to determine beneficial use support. Sixteen samples were collected and three of those sample results exceeded the guideline, however the remaining thirteen samples were non-detect and the laboratory method detection limit was above the guideline, therefore the results could not be quantified with the level of certainty required by the Listing Policy.
Data Reference:	Final Data File used for assessment: Department of Pesticide Regulation Data, 2003-2005
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate

Spatial Representation: Data for this line of evidence for Chualar Creek was collected at 1 monitoring site [Chualar Creek - 309CRR]

Temporal Representation: Data was collected over the time period 6/16/2003-9/29/2003.

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information: All data was collected and analyzed following Department of Pesticide Regulation Standard Operating Procedures (Available online at <http://www.cdpr.ca.gov/docs/emon/pubs/sop.htm>).

QAPP Information Reference(s):

Line of Evidence (LOE) for Decision ID 47191, Malathion
Chualar Creek

Region 3

LOE ID: 54056

Pollutant: Malathion

LOE Subgroup: Pollutant-Water

Matrix: Water

Fraction: Total

Beneficial Use: Municipal & Domestic Supply

Number of Samples: 16

Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING

Data Used to Assess Water Quality: Water Board staff assessed DPR data for Chualar Creek to determine beneficial use support and results are as follows: 0 of 16 samples exceed the criterion for Malathion.

Data Reference: [Final Data File used for assessment: Department of Pesticide Regulation Data_2003-2005](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: The USEPA drinking water life-time health advisory for malathion is 500 Åg/L.

Guideline Reference: [2011 Edition of the Drinking Water Standards and Health Advisories](#)

Spatial Representation: Data for this line of evidence for Chualar Creek was collected at 1 monitoring site [Chualar Creek - 309CRR]

Temporal Representation: Data was collected over the time period 6/16/2003-9/29/2003.

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information: All data was collected and analyzed following Department of Pesticide Regulation Standard Operating Procedures (Available online at <http://www.cdpr.ca.gov/docs/emon/pubs/sop.htm>).

QAPP Information Reference(s):

DECISION ID	47244	Region 3
Espinosa Slough		

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (TMDL required list)
Last Listing Cycle's Final Listing Decision: New Decision
Revision Status Revised
Sources: Source Unknown
Expected TMDL Completion Date: 2027
Impairment from Pollutant or Pollution: Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. Two of the 5 samples exceed the Evaluation Guideline (Palumbo, A.J., et al., 2012).

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section 303(d) List.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Two of the 5 samples exceed the Evaluation Guideline and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Line of Evidence (LOE) for Decision ID 47244, Malathion	Region 3
Espinosa Slough	

LOE ID: 54111
Pollutant: Malathion

LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	3
Number of Exceedances:	1
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Espinosa Slough to determine beneficial use support and results are as follows: 1 of 3 samples exceed the criterion for Malathion.
Data Reference:	Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Espinosa Slough was collected at 1 monitoring site [Espinosa Slough - 309ESP]
Temporal Representation:	Data was collected over the time period 2/14/2007-9/25/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

**Line of Evidence (LOE) for Decision ID 47244, Malathion
Espinosa Slough**

Region 3

LOE ID:	54112
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	2
Number of Exceedances:	1
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed CMP data for Espinosa Slough to determine beneficial use support and results are as follows: 1 of 2 samples exceed the criterion for Malathion.
Data Reference:	Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely

affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference:

Water Quality Control Plan for the Central Coastal Basin

Evaluation Guideline:

UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.

Guideline Reference:

Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.

Spatial Representation:

Data for this line of evidence for Espinosa Slough was collected at 1 monitoring site [Espinosa Slough - 309ESP]

Temporal Representation:

Data was collected over the time period 8/23/2006-9/27/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).

Environmental Conditions:

Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information:

All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.

QAPP Information Reference(s):

Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

DECISION ID	47380	Region 3
Greene Valley Creek (Santa Barbara County)		

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (being addressed by USEPA approved TMDL)
Last Listing Cycle's Final Listing Decision: New Decision
Revision Status: Revised
Sources: Agriculture
TMDL Name: Santa Maria River Watershed Toxicity and Pesticides TMDL
TMDL Project Code: 1081
Date TMDL Approved by USEPA: 08/31/2015
Impairment from Pollutant or Pollution: Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Nine lines of evidence are available in the administrative record to assess this pollutant. Two of the 6 samples exceed the evaluation guideline for aquatic life uses (Palumbo, A.J., et al., 2012) but zero of the 6 sample exceed the evaluation guideline for drinking water (USEPA drinking water health advisory level). This sample size is insufficient to determine, with the power and confidence of the Listing Policy, the applicable beneficial use support rating. A minimum of 16 samples is needed to determine if a beneficial use is supported and a minimum of two exceedances is needed to determine if beneficial uses are not supported using table 3.1. Therefore, the use support rating is set to 'insufficient information' unless the beneficial use is not supported.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section 303(d) List.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.

2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3 Two of the 6 samples exceed the evaluation guideline and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. The Santa Maria River Watershed Toxicity and Pesticide TMDL has been approved by USEPA on August 31, 2015.
5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

**Line of Evidence (LOE) for Decision ID 47380, Malathion
Greene Valley Creek (Santa Barbara County)**

Region 3

LOE ID: 54483

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Warm Freshwater Habitat

Number of Samples: 1
Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: Water Board staff assessed TMDL Project data for Greene Valley Creek (Santa Barbara County) to determine beneficial use support and results are as follows: 0 of 1 samples exceed the criterion for Malathion. An arithmetic mean is calculated when replicates, such as field duplicates, are reported. If a non-detect is one of the results, then one half the reporting limit is used in this calculation.

Data Reference: [Data from Santa Maria River Watershed and Oso Flaco Creek Watershed TMDL Monitoring Study](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Water Quality Control Plan, Central Coast Basin, Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.

Guideline Reference: [Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.](#)

Spatial Representation: Data for this line of evidence for Greene Valley Creek (Santa Barbara County) was collected at 1 monitoring site [Green Valley Ck. at Simas - 312GVS]

Temporal Representation: Data was collected on a single day 6/10/2009.

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information: Sampling and analysis was conducted following the SWAMP QAPP 2008.

QAPP Information Reference(s): [Surface Water Ambient Monitoring Program Quality Assurance Program Plan](#)

**Line of Evidence (LOE) for Decision ID 47380, Malathion
Greene Valley Creek (Santa Barbara County)**

Region 3

LOE ID: 54467

Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Municipal & Domestic Supply
Number of Samples:	3
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Greene Valley Creek (Santa Barbara County) to determine beneficial use support and results are as follows: 0 of 3 samples exceed the criterion for Malathion.
Data Reference:	Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	The USEPA drinking water health advisory for malathion is 500 Åµg/L.
Guideline Reference:	2011 Edition of the Drinking Water Standards and Health Advisories
Spatial Representation:	Data for this line of evidence for Greene Valley Creek (Santa Barbara County) was collected at 1 monitoring site [Green Valley Ck. at Simas - 312GVS]
Temporal Representation:	Data was collected over the time period 2/14/2007-9/26/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 47380, Malathion
Greene Valley Creek (Santa Barbara County)

Region 3

LOE ID:	54468
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Municipal & Domestic Supply
Number of Samples:	2
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed CMP data for Greene Valley Creek (Santa Barbara County) to determine beneficial use support and results are as follows: 0 of 2 samples exceed the criterion for Malathion.
Data Reference:	Final Data File used for assessment: Central Coast Water Quality Preservation, Inc. water quality data
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which

produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference:

[Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline:

The USEPA drinking water health advisory for malathion is 500 Åµg/L.

Guideline Reference:

[2011 Edition of the Drinking Water Standards and Health Advisories](#)

Spatial Representation:

Data for this line of evidence for Greene Valley Creek (Santa Barbara County) was collected at 1 monitoring site [Green Valley Ck. at Simas - 312GVS]

Temporal Representation:

Data was collected over the time period 8/22/2006-9/26/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).

Environmental Conditions:

Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information:

All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.

QAPP Information Reference(s):

[Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6](#)

Line of Evidence (LOE) for Decision ID 47380, Malathion

Region 3

Greene Valley Creek (Santa Barbara County)

LOE ID:

54484

Pollutant:

Malathion

LOE Subgroup:

Pollutant-Water

Matrix:

Water

Fraction:

Total

Beneficial Use:

Cold Freshwater Habitat

Number of Samples:

1

Number of Exceedances:

0

Data and Information Type:

PHYSICAL/CHEMICAL MONITORING

Data Used to Assess Water Quality:

Water Board staff assessed TMDL Project data for Greene Valley Creek (Santa Barbara County) to determine beneficial use support and results are as follows: 0 of 1 samples exceed the criterion for Malathion. An arithmetic mean is calculated when replicates, such as field duplicates, are reported. If a non-detect is one of the results, then one half the reporting limit is used in this calculation.

Data Reference:

[Data from Santa Maria River Watershed and Oso Flaco Creek Watershed TMDL Monitoring Study](#)

SWAMP Data:

Non-SWAMP

Water Quality Objective/Criterion:

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Water Quality Control Plan, Central Coast Basin, Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference:

[Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline:

UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.

Guideline Reference:

[Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.](#)

Spatial Representation:

Data for this line of evidence for Greene Valley Creek (Santa Barbara County) was collected at 1 monitoring site [Green Valley Ck. at Simas - 312GVS]

Temporal Representation:

Data was collected on a single day 6/10/2009.

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information: Sampling and analysis was conducted following the SWAMP QAPP 2008.
QAPP Information Reference(s): [Surface Water Ambient Monitoring Program Quality Assurance Program Plan](#)

Line of Evidence (LOE) for Decision ID 47380, Malathion
Greene Valley Creek (Santa Barbara County)

Region 3

LOE ID: 54482

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Cold Freshwater Habitat

Number of Samples: 2
Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: Water Board staff assessed CMP data for Greene Valley Creek (Santa Barbara County) to determine beneficial use support and results are as follows: 0 of 2 samples exceed the criterion for Malathion.

Data Reference: [Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.

Guideline Reference: [Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.](#)

Spatial Representation: Data for this line of evidence for Greene Valley Creek (Santa Barbara County) was collected at 1 monitoring site [Green Valley Ck. at Simas - 312GVS]

Temporal Representation: Data was collected over the time period 8/22/2006-9/26/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information: All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.

QAPP Information Reference(s): [Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6](#)

Line of Evidence (LOE) for Decision ID 47380, Malathion
Greene Valley Creek (Santa Barbara County)

Region 3

LOE ID: 54477

Pollutant: Malathion
LOE Subgroup: Pollutant-Water

Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	2
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed CMP data for Greene Valley Creek (Santa Barbara County) to determine beneficial use support and results are as follows: 0 of 2 samples exceed the criterion for Malathion.
Data Reference:	Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Greene Valley Creek (Santa Barbara County) was collected at 1 monitoring site [Green Valley Ck. at Simas - 312GVS]
Temporal Representation:	Data was collected over the time period 8/22/2006-9/26/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 47380, Malathion

Region 3

Greene Valley Creek (Santa Barbara County)

LOE ID:	54476
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Cold Freshwater Habitat
Number of Samples:	3
Number of Exceedances:	2
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Greene Valley Creek (Santa Barbara County) to determine beneficial use support and results are as follows: 2 of 3 samples exceed the criterion for Malathion.

Data Reference:	Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Greene Valley Creek (Santa Barbara County) was collected at 1 monitoring site [Green Valley Ck. at Simas - 312GVS]
Temporal Representation:	Data was collected over the time period 2/14/2007-9/26/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 47380, Malathion
Greene Valley Creek (Santa Barbara County)

Region 3

LOE ID:	54475
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	3
Number of Exceedances:	2
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Greene Valley Creek (Santa Barbara County) to determine beneficial use support and results are as follows: 2 of 3 samples exceed the criterion for Malathion.
Data Reference:	Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Greene Valley Creek (Santa Barbara County) was collected at 1 monitoring site [Green Valley Ck. at Simas - 312GVS]
Temporal Representation:	Data was collected over the time period 2/14/2007-9/26/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.

**Line of Evidence (LOE) for Decision ID 47380, Malathion
Greene Valley Creek (Santa Barbara County)**

Region 3

LOE ID:	54474
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Municipal & Domestic Supply
Number of Samples:	1
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed TMDL Project data for Greene Valley Creek (Santa Barbara County) to determine beneficial use support and results are as follows: 0 of 1 samples exceed the criterion for Malathion. An arithmetic mean is calculated when replicates, such as field duplicates, are reported. If a non-detect is one of the results, then one half the reporting limit is used in this calculation.
Data Reference:	Data from Santa Maria River Watershed and Oso Flaco Creek Watershed TMDL Monitoring Study
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Water Quality Control Plan, Central Coast Basin, Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	The USEPA drinking water health advisory for malathion is 500 Åµg/L.
Guideline Reference:	2011 Edition of the Drinking Water Standards and Health Advisories
Spatial Representation:	Data for this line of evidence for Greene Valley Creek (Santa Barbara County) was collected at 1 monitoring site [Green Valley Ck. at Simas - 312GVS]
Temporal Representation:	Data was collected on a single day 6/10/2009.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	Sampling and analysis was conducted following the SWAMP QAPP 2008.
QAPP Information Reference(s):	Surface Water Ambient Monitoring Program Quality Assurance Program Plan

DECISION ID	48168	Region 3
Main Street Channel		

Pollutant:	Malathion
Final Listing Decision:	List on 303(d) list (being addressed by USEPA approved TMDL)
Last Listing Cycle's Final Listing Decision:	New Decision
Revision Status	Revised
Sources:	Agriculture

TMDL Name: Santa Maria River Watershed Toxicity and Pesticides TMDL
TMDL Project Code: 1081
Date TMDL Approved by USEPA: 08/31/2015
Impairment from Pollutant or Pollution: Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Nine lines of evidence are available in the administrative record to assess this pollutant. Four of the six samples exceed the evaluation guideline for aquatic life uses (maximum acceptable toxicant concentration (Palumbo, A.J., et al., 2012) and these beneficial uses are not supported. Zero of the six sample exceed the evaluation guideline for drinking water (USEPA drinking water health advisory level). This sample size is insufficient to determine, with the power and confidence of the Listing Policy, the applicable beneficial use support rating. A minimum of 16 samples is needed to determine if a beneficial use is supported and a minimum of two exceedances is needed to determine if beneficial uses are not supported using table 3.1. Therefore, the use support rating is set to 'insufficient information' unless the beneficial use is not supported.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification for placing this water segment-pollutant combination on the CWA section 303(d) List in the Water Quality Limited Segments category. There is sufficient justification to place it in the Being Addressed portion of the CWA 303(d) List because a TMDL has been completed and approved by RWQCB and USEPA, and is expected to result in attainment of the standard.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Four of the six samples exceed the evaluation guidelines and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. The Santa Maria River Watershed Pesticide and Toxicity TMDL has been approved by the USEPA on August 31, 2015.
5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

There is sufficient justification to place it in the Being Addressed portion of the CWA 303(d) List because a TMDL has been completed and approved by RWQCB and USEPA, and is expected to result in attainment of the standard.

Line of Evidence (LOE) for Decision ID 48168, Malathion

Region 3

Main Street Channel

LOE ID: 54816

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Cold Freshwater Habitat

Number of Samples: 3
Number of Exceedances: 2

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: State Water Board staff assessed CMP data for Main Street Canal to determine beneficial

Data Reference: [use support and results are as follows: 2 of 3 samples exceed the criterion for Malathion. Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.

Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.

Guideline Reference: [Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.](#)

Spatial Representation: Data for this line of evidence for Main Street Canal was collected at 1 monitoring site [Main Street Canal - 312MSD]

Temporal Representation: Data was collected over the time period 2/14/2007-9/25/2007.

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information: The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.

QAPP Information Reference(s): [Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6](#)

Line of Evidence (LOE) for Decision ID 48168, Malathion

Region 3

Main Street Channel

LOE ID: 54807

Pollutant: Malathion

LOE Subgroup: Pollutant-Water

Matrix: Water

Fraction: Total

Beneficial Use: Municipal & Domestic Supply

Number of Samples: 1

Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING

Data Used to Assess Water Quality: Water Board staff assessed TMDL Project data for Main Street Canal to determine beneficial use support and results are as follows: 0 of 1 samples exceed the criterion for Malathion. An arithmetic mean is calculated when replicates, such as field duplicates, are reported. If a non-detect is one of the results, then one half the reporting limit is used in this calculation.

Data Reference: [Data from Santa Maria River Watershed and Oso Flaco Creek Watershed TMDL Monitoring Study](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Water Quality Control Plan, Central Coast Basin, Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: The USEPA drinking water health advisory for malathion is 500 Åµg/L.

Guideline Reference: [2011 Edition of the Drinking Water Standards and Health Advisories](#)

Spatial Representation: Data for this line of evidence for Main Street Canal was collected at 1 monitoring site [Main Street Ditch - 312MSS]

Temporal Representation: Data was collected on a single day 8/26/2009.

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information: Sampling and analysis was conducted following the SWAMP QAPP 2008.
QAPP Information Reference(s): [Surface Water Ambient Monitoring Program Quality Assurance Program Plan](#)

Line of Evidence (LOE) for Decision ID 48168, Malathion

Region 3

Main Street Channel

LOE ID: 54818

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Cold Freshwater Habitat

Number of Samples: 2
Number of Exceedances: 2

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: Water Board staff assessed CMP data for Main Street Canal to determine beneficial use support and results are as follows: 2 of 2 samples exceed the criterion for Malathion.
Data Reference: [Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference: [Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.](#)

Spatial Representation: Data for this line of evidence for Main Street Canal was collected at 1 monitoring site [Main Street Canal - 312MSD]

Temporal Representation: Data was collected over the time period 8/22/2006-9/26/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information: All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.
QAPP Information Reference(s): [Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6](#)

Line of Evidence (LOE) for Decision ID 48168, Malathion

Region 3

Main Street Channel

LOE ID: 54817

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water

Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	2
Number of Exceedances:	2
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed CMP data for Main Street Canal to determine beneficial use support and results are as follows: 2 of 2 samples exceed the criterion for Malathion.
Data Reference:	<u>Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data</u>
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	<u>Water Quality Control Plan for the Central Coastal Basin</u>
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	<u>Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.</u>
Spatial Representation:	Data for this line of evidence for Main Street Canal was collected at 1 monitoring site [Main Street Canal - 312MSD]
Temporal Representation:	Data was collected over the time period 8/22/2006-9/26/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.
QAPP Information Reference(s):	<u>Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6</u>

Line of Evidence (LOE) for Decision ID 48168, Malathion

Region 3

Main Street Channel

LOE ID:	54828
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Cold Freshwater Habitat
Number of Samples:	1
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed TMDL Project data for Main Street Canal to determine beneficial use support and results are as follows: 0 of 1 samples exceed the criterion for Malathion. An arithmetic mean is calculated when replicates, such as field duplicates, are reported. If a non-detect is one of the results, then one half the reporting limit is used in this calculation.

Data Reference:	Data from Santa Maria River Watershed and Oso Flaco Creek Watershed TMDL Monitoring Study
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Water Quality Control Plan, Central Coast Basin, Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Main Street Canal was collected at 1 monitoring site [Main Street Ditch - 312MSS]
Temporal Representation:	Data was collected on a single day 8/26/2009.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	Sampling and analysis was conducted following the SWAMP QAPP 2008.
QAPP Information Reference(s):	Surface Water Ambient Monitoring Program Quality Assurance Program Plan

Line of Evidence (LOE) for Decision ID 48168, Malathion

Region 3

Main Street Channel

LOE ID:	54815
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	3
Number of Exceedances:	2
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Main Street Canal to determine beneficial use support and results are as follows: 2 of 3 samples exceed the criterion for Malathion.
Data Reference:	Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Main Street Canal was collected at 1 monitoring site [Main Street Canal - 312MSD]
Temporal Representation:	Data was collected over the time period 2/14/2007-9/25/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver

Line of Evidence (LOE) for Decision ID 48168, Malathion**Region 3****Main Street Channel**

LOE ID:	54805
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Municipal & Domestic Supply
Number of Samples:	3
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Main Street Canal to determine beneficial use support and results are as follows: 0 of 3 samples exceed the criterion for Malathion.
Data Reference:	Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	The USEPA drinking water health advisory for malathion is 500 Åµg/L.
Guideline Reference:	2011 Edition of the Drinking Water Standards and Health Advisories
Spatial Representation:	Data for this line of evidence for Main Street Canal was collected at 1 monitoring site [Main Street Canal - 312MSD]
Temporal Representation:	Data was collected over the time period 2/14/2007-9/25/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 48168, Malathion**Region 3****Main Street Channel**

LOE ID:	54827
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	1
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed TMDL Project data for Main Street Canal to determine beneficial use support and results are as follows: 0 of 1 samples exceed the criterion for Malathion. An arithmetic mean is calculated when replicates, such as field duplicates, are reported. If a non-detect is one of the results, then one half the reporting limit is used in this

calculation.

Data Reference: [Data from Santa Maria River Watershed and Oso Flaco Creek Watershed TMDL Monitoring Study](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Water Quality Control Plan, Central Coast Basin, Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.

Guideline Reference: [Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.](#)

Spatial Representation: Data for this line of evidence for Main Street Canal was collected at 1 monitoring site [Main Street Ditch - 312MSS]

Temporal Representation: Data was collected on a single day 8/26/2009.

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information: Sampling and analysis was conducted following the SWAMP QAPP 2008.

QAPP Information Reference(s): [Surface Water Ambient Monitoring Program Quality Assurance Program Plan](#)

Line of Evidence (LOE) for Decision ID 48168, Malathion

Region 3

Main Street Channel

LOE ID: 54806

Pollutant: Malathion

LOE Subgroup: Pollutant-Water

Matrix: Water

Fraction: Total

Beneficial Use: Municipal & Domestic Supply

Number of Samples: 2

Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING

Data Used to Assess Water Quality: Water Board staff assessed CMP data for Main Street Canal to determine beneficial use support and results are as follows: 0 of 2 samples exceed the criterion for Malathion.

Data Reference: [Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: The USEPA drinking water health advisory for malathion is 500 Åµg/L.

Guideline Reference: [2011 Edition of the Drinking Water Standards and Health Advisories](#)

Spatial Representation: Data for this line of evidence for Main Street Canal was collected at 1 monitoring site [Main Street Canal - 312MSD]

Temporal Representation: Data was collected over the time period 8/22/2006-9/26/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver

Environmental Conditions:	monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).
QAPP Information:	Staff is not aware of any special conditions that might affect interpretation of the data. All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.
QAPP Information Reference(s):	<u>Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6</u>

DECISION ID	48465	Region 3
McGowan Ditch		

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (TMDL required list)
Last Listing Cycle's Final Listing Decision: New Decision
Revision Status Revised
Sources: Source Unknown
Expected TMDL Completion Date: 2027
Impairment from Pollutant or Pollution: Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. Zero of the nine samples exceed the evaluation guideline for drinking water (USEPA drinking water health advisory) but two of the two samples exceed the evaluation guideline for aquatic life uses (Fojut, T.L., et al., 2012). Note, seven of the nine samples are not included in the LOEs for Cold and Warm freshwater habitats because the results were "non-detect" but the laboratory reporting limit was above the evaluation guideline. Therefore staff are unable to determine if the guideline was exceeded. This sample size is insufficient to determine, with the power and confidence of the Listing Policy, the

applicable beneficial use support rating. A minimum of 16 samples is needed to determine if a beneficial use is supported and a minimum of two exceedances is needed to determine if beneficial uses are not supported using table 3.1. Therefore, the use support rating is set to 'insufficient information' unless the beneficial use is not supported.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section 303(d) List in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Two of the two samples exceed the evaluation guideline for aquatic life uses and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

**Line of Evidence (LOE) for Decision ID 48465, Malathion
McGowan Ditch**

Region 3

LOE ID:	54987
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Dissolved
Beneficial Use:	Cold Freshwater Habitat
Number of Samples:	2
Number of Exceedances:	2
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed USGS data for McGowan Ditch to determine beneficial use support and results are as follows: 2 of 9 samples exceed the criterion for MALATHION. Seven sample results were not used in the assessment because the laboratory data reporting limit(s) was above the objective and therefore the results could not be quantified with the level of certainty required by the Listing Policy.
Data Reference:	Data for various pollutants in the Pajaro, Salinas, and Santa Maria River estuaries, Jan. 2008-Oct. 2009
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Central Coast Basin Plan General Objective).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: II. Pyrethroid insecticides. Reviews of Environmental Contamination and Toxicology 216:51-103.
Spatial Representation:	Data for this line of evidence for McGowan Ditch was collected at 1 monitoring site [Monterey Drainage Ditch - trib to Pajaro River between McGowean Rd and Bluff Dr - 305MDD]
Temporal Representation:	Data was collected over the time period 1/6/2008-10/28/2009.

Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the Watershed-scale Evaluation of Agricultural BMP Effectiveness Protecting Critical Coastal Habitats project. A QAPP was provided and the data was analyzed at the Marine Pollution Studies Laboratory and submitted in SWAMP format.
QAPP Information Reference(s):	Surface Water Ambient Monitoring Program Quality Assurance Program Plan

Line of Evidence (LOE) for Decision ID 48465, Malathion
McGowan Ditch

Region 3

LOE ID:	54981
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Dissolved
Beneficial Use:	Municipal & Domestic Supply
Number of Samples:	9
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed USGS data for McGowan Ditch to determine beneficial use support and results are as follows: 0 of 9 samples exceed the criterion for MALATHION.
Data Reference:	Data for various pollutants in the Pajaro, Salinas, and Santa Maria River estuaries, Jan. 2008-Oct. 2009
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Central Coast Basin Plan General Objective).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	The USEPA drinking water health advisory for malathion is 500 Åµg/L.
Guideline Reference:	2011 Edition of the Drinking Water Standards and Health Advisories
Spatial Representation:	Data for this line of evidence for McGowan Ditch was collected at 1 monitoring site [Monterey Drainage Ditch - trib to Pajaro River between McGowean Rd and Bluff Dr - 305MDD]
Temporal Representation:	Data was collected over the time period 1/6/2008-10/28/2009.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the Watershed-scale Evaluation of Agricultural BMP Effectiveness Protecting Critical Coastal Habitats project. A QAPP was provided and the data was analyzed at the Marine Pollution Studies Laboratory and submitted in SWAMP format.
QAPP Information Reference(s):	Surface Water Ambient Monitoring Program Quality Assurance Program Plan

Line of Evidence (LOE) for Decision ID 48465, Malathion
McGowan Ditch

Region 3

LOE ID:	54986
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Dissolved
Beneficial Use:	Warm Freshwater Habitat

Number of Samples:	2
Number of Exceedances:	2
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed USGS data for McGowan Ditch to determine beneficial use support and results are as follows: 2 of 9 samples exceed the criterion for MALATHION. Seven sample results were not used in the assessment because the laboratory data reporting limit(s) was above the objective and therefore the results could not be quantified with the level of certainty required by the Listing Policy.
Data Reference:	<u>Data for various pollutants in the Pajaro, Salinas, and Santa Maria River estuaries Jan. 2008-Oct. 2009</u>
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Central Coast Basin Plan General Objective).
Objective/Criterion Reference:	<u>Water Quality Control Plan for the Central Coastal Basin</u>
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	<u>Aquatic life water quality criteria derived via the UC Davis method: II. Pyrethroid insecticides. Reviews of Environmental Contamination and Toxicology 216:51-103.</u>
Spatial Representation:	Data for this line of evidence for McGowan Ditch was collected at 1 monitoring site [Monterey Drainage Ditch - trib to Pajaro River between McGowean Rd and Bluff Dr - 305MDD]
Temporal Representation:	Data was collected over the time period 1/6/2008-10/28/2009.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the Watershed-scale Evaluation of Agricultural BMP Effectiveness Protecting Critical Coastal Habitats project. A QAPP was provided and the data was analyzed at the Marine Pollution Studies Laboratory and submitted in SWAMP format.
QAPP Information Reference(s):	<u>Surface Water Ambient Monitoring Program Quality Assurance Program Plan</u>

DECISION ID	47311	Region 3
Orcutt Creek		

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (being addressed by USEPA approved TMDL)
Last Listing Cycle's Final Listing Decision: New Decision
Revision Status: Revised
Sources: Agriculture
TMDL Name: Santa Maria River Watershed Toxicity and Pesticides TMDL
TMDL Project Code: 1081
Date TMDL Approved by USEPA: 08/31/2015
Impairment from Pollutant or Pollution: Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Eight lines of evidence are available in the administrative record to assess this pollutant. Fourteen of the 17 samples exceed the evaluation guideline for aquatic life protection. However, zero of the 21 samples exceed the USEPA drinking water health advisory level and this sample size is insufficient to determine, with the power and confidence of the Listing Policy, the applicable beneficial use support rating. A minimum of 16 samples is needed to determine if a beneficial use is supported and a minimum of two exceedances is needed to determine if beneficial uses are not supported using table 3.1. Therefore, the use support rating is set to 'insufficient information'.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section

303(d) List. In accordance with section 2.2 of the Policy, there is sufficient justification to place it in the Being Addressed portion of the CWA 303(d) List because a TMDL has been completed and approved by RWQCB and USEPA, and is expected to result in attainment of the standard.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Fourteen of the 17 samples exceed the evaluation guideline for aquatic life protection and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. The Santa Maria River Watershed Toxicity and Pesticide TMDL has been approved by USEPA on October 31, 2015.
5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation:

After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

There is sufficient justification to place it in the Being Addressed portion of the CWA 303(d) List because a TMDL has been completed and approved by RWQCB and USEPA, and is expected to result in attainment of the standard.

**Line of Evidence (LOE) for Decision ID 47311, Malathion
Orcutt Creek**

Region 3

LOE ID:	55748
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Municipal & Domestic Supply
Number of Samples:	2
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed TMDL Project data for Orcutt Creek to determine beneficial use support and results are as follows: 0 of 2 samples exceed the criterion for Malathion. An arithmetic mean is calculated when replicates, such as field duplicates, are reported. If a non-detect is one of the results, then one half the reporting limit is used in this calculation.
Data Reference:	Data from Santa Maria River Watershed and Oso Flaco Creek Watershed TMDL Monitoring Study
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Water Quality Control Plan, Central Coast Basin, Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	The USEPA drinking water health advisory for malathion is 500 µg/L.
Guideline Reference:	2011 Edition of the Drinking Water Standards and Health Advisories
Spatial Representation:	Data for this line of evidence for Orcutt Creek was collected at 2 monitoring sites [Orcutt Ck. at Brown Road - 312GVT, Orcutt Creek u/s Santa Maria River - 312ORC]
Temporal Representation:	Data was collected on a single day 8/26/2009.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	Sampling and analysis was conducted following the SWAMP QAPP 2008.

Line of Evidence (LOE) for Decision ID 47311, Malathion**Region 3****Orcutt Creek**

LOE ID:	55749
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Cold Freshwater Habitat
Number of Samples:	6
Number of Exceedances:	4
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Orcutt Creek to determine beneficial use support and results are as follows: 4 of 6 samples exceed the criterion for Malathion.
Data Reference:	Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Orcutt Creek was collected at 2 monitoring sites [Orcutt Creek - 312ORI, Orcutt Creek u/s Santa Maria River - 312ORC]
Temporal Representation:	Data was collected over the time period 2/14/2007-9/26/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 47311, Malathion**Region 3****Orcutt Creek**

LOE ID:	55745
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Municipal & Domestic Supply
Number of Samples:	6
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Orcutt Creek to determine beneficial use support and results are as follows: 0 of 6 samples exceed the criterion for Malathion.

Data Reference:	Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	The USEPA drinking water health advisory for malathion is 500 Åµg/L.
Guideline Reference:	2011 Edition of the Drinking Water Standards and Health Advisories
Spatial Representation:	Data for this line of evidence for Orcutt Creek was collected at 2 monitoring sites [Orcutt Creek - 312ORI, Orcutt Creek u/s Santa Maria River - 312ORC]
Temporal Representation:	Data was collected over the time period 2/14/2007-9/26/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 47311, Malathion Orcutt Creek

Region 3

LOE ID:	55746
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Dissolved
Beneficial Use:	Municipal & Domestic Supply
Number of Samples:	9
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed USGS data for Orcutt Creek to determine beneficial use support and results are as follows: 0 of 9 samples exceed the criterion for MALATHION.
Data Reference:	Data for various pollutants in the Pajaro, Salinas, and Santa Maria River estuaries, Jan. 2008-Oct. 2009
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Central Coast Basin Plan General Objective).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	The USEPA drinking water health advisory for malathion is 500 Åµg/L.
Guideline Reference:	2011 Edition of the Drinking Water Standards and Health Advisories
Spatial Representation:	Data for this line of evidence for Orcutt Creek was collected at 1 monitoring site [Orcutt Creek u/s Santa Maria River - 312ORC]
Temporal Representation:	Data was collected over the time period 1/5/2008-10/29/2009.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the Watershed-scale Evaluation of Agricultural BMP Effectiveness Protecting Critical Coastal Habitats project. A QAPP was provided and the data was analyzed at the Marine Pollution Studies Laboratory and submitted in SWAMP format.
QAPP Information Reference(s):	Surface Water Ambient Monitoring Program Quality Assurance Program Plan

**Line of Evidence (LOE) for Decision ID 47311, Malathion
Orcutt Creek**

Region 3

LOE ID: 55747

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Municipal & Domestic Supply

Number of Samples: 4
Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: Water Board staff assessed CMP data for Orcutt Creek to determine beneficial use support and results are as follows: 0 of 4 samples exceed the criterion for Malathion.
Data Reference: [Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: The USEPA drinking water health advisory for malathion is 500 Åµg/L.
Guideline Reference: [2011 Edition of the Drinking Water Standards and Health Advisories](#)

Spatial Representation: Data for this line of evidence for Orcutt Creek was collected at 2 monitoring sites [Orcutt Creek - 312ORI, Orcutt Creek u/s Santa Maria River - 312ORC]

Temporal Representation: Data was collected over the time period 8/22/2006-9/27/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information: All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.

QAPP Information Reference(s): [Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6](#)

**Line of Evidence (LOE) for Decision ID 47311, Malathion
Orcutt Creek**

Region 3

LOE ID: 55752

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Cold Freshwater Habitat

Number of Samples: 2
Number of Exceedances: 2

Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed TMDL Project data for Orcutt Creek to determine beneficial use support and results are as follows: 2 of 2 samples exceed the criterion for Malathion. An arithmetic mean is calculated when replicates, such as field duplicates, are reported. If a non-detect is one of the results, then one half the reporting limit is used in this calculation.
Data Reference:	Data from Santa Maria River Watershed and Oso Flaco Creek Watershed TMDL Monitoring Study
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Water Quality Control Plan, Central Coast Basin, Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Orcutt Creek was collected at 2 monitoring sites [Orcutt Ck. at Brown Road - 312GVT, Orcutt Creek u/s Santa Maria River - 312ORC]
Temporal Representation:	Data was collected on a single day 8/26/2009.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	Sampling and analysis was conducted following the SWAMP QAPP 2008.
QAPP Information Reference(s):	Surface Water Ambient Monitoring Program Quality Assurance Program Plan

Line of Evidence (LOE) for Decision ID 47311, Malathion

Region 3

Orcutt Creek

LOE ID:	55751
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Cold Freshwater Habitat
Number of Samples:	4
Number of Exceedances:	3
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed CMP data for Orcutt Creek to determine beneficial use support and results are as follows: 3 of 4 samples exceed the criterion for Malathion.
Data Reference:	Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.

Guideline Reference: [Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.](#)

Spatial Representation: Data for this line of evidence for Orcutt Creek was collected at 2 monitoring sites [Orcutt Creek - 312ORI, Orcutt Creek u/s Santa Maria River - 312ORC]

Temporal Representation: Data was collected over the time period 8/22/2006-9/27/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information: All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.

QAPP Information Reference(s): [Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6](#)

**Line of Evidence (LOE) for Decision ID 47311, Malathion
Orcutt Creek**

Region 3

LOE ID: 55750

Pollutant: Malathion

LOE Subgroup: Pollutant-Water

Matrix: Water

Fraction: Dissolved

Beneficial Use: Cold Freshwater Habitat

Number of Samples: 5

Number of Exceedances: 5

Data and Information Type: PHYSICAL/CHEMICAL MONITORING

Data Used to Assess Water Quality: Water Board staff assessed USGS data for Orcutt Creek to determine beneficial use support and results are as follows: 5 of 5 samples exceed the criterion for MALATHION. Four sample results were not used in the assessment because the laboratory data reporting limit(s) was above the objective and therefore the results could not be quantified with the level of certainty required by the Listing Policy.

Data Reference: [Data for various pollutants in the Pajaro, Salinas, and Santa Maria River estuaries, Jan. 2008-Oct. 2009](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Central Coast Basin Plan General Objective).

Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.

Guideline Reference: [Aquatic life water quality criteria derived via the UC Davis method: II. Pyrethroid insecticides. Reviews of Environmental Contamination and Toxicology 216:51-103.](#)

Spatial Representation: Data for this line of evidence for Orcutt Creek was collected at 1 monitoring site [Orcutt Creek u/s Santa Maria River - 312ORC]

Temporal Representation: Data was collected over the time period 1/5/2008-10/29/2009.

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information: The data was collected for the Watershed-scale Evaluation of Agricultural BMP Effectiveness Protecting Critical Coastal Habitats project. A QAPP was provided and the data was analyzed at the Marine Pollution Studies Laboratory and submitted in SWAMP format.

QAPP Information Reference(s): [Surface Water Ambient Monitoring Program Quality Assurance Program Plan](#)

DECISION ID	48895	Region 3
Oso Flaco Creek		

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (being addressed by USEPA approved TMDL)
Last Listing Cycle's Final Listing Decision: New Decision
Revision Status Revised
Sources: Agriculture
TMDL Name: Santa Maria River Watershed Toxicity and Pesticides TMDL
TMDL Project Code: 1081
Date TMDL Approved by USEPA: 08/31/2015
Impairment from Pollutant or Pollution: Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Six lines of evidence are available in the administrative record to assess this pollutant. Five of the six samples exceed the evaluation guideline for aquatic life uses but zero of the six samples exceed the evaluation guideline for drinking water. This sample size is insufficient to determine, with the power and confidence of the Listing Policy, the applicable beneficial use support rating for the drinking water use. A minimum of 16 samples is needed to determine if a beneficial use is supported and a minimum of two exceedances is needed to determine if beneficial uses are not supported using table 3.1. Therefore, the use support rating for the drinking water use is set to 'insufficient information'.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section 303(d) List in the Water Quality Limited Segments category. There is sufficient justification to place it in the Being Addressed portion of the CWA 303(d) List because a TMDL has been completed and approved by RWQCB and USEPA, and is expected to result in attainment of the standard.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Five of the six samples exceed the evaluation guideline for aquatic life and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. The Santa Maria River Watershed Toxicity and Pesticide TMDL has been approved by USEPA on October 31, 2015.
5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

There is sufficient justification to place it in the Being Addressed portion of the CWA 303(d) List because a TMDL has been completed and approved by RWQCB and USEPA, and is expected to result in attainment of the standard.

Line of Evidence (LOE) for Decision ID 48895, Malathion
Oso Flaco Creek

Region 3

LOE ID: 55939

Pollutant: Malathion
 LOE Subgroup: Pollutant-Water
 Matrix: Water
 Fraction: Total

Beneficial Use: Municipal & Domestic Supply

Number of Samples: 1
 Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
 Data Used to Assess Water Quality: Water Board staff assessed TMDL Project data for Oso Flaco Creek to determine beneficial use support and results are as follows: 0 of 1 samples exceed the criterion for Malathion. An arithmetic mean is calculated when replicates, such as field duplicates, are reported. If a non-detect is one of the results, then one half the reporting limit is used in this calculation.

Data Reference: [Data from Santa Maria River Watershed and Oso Flaco Creek Watershed TMDL Monitoring Study](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Water Quality Control Plan, Central Coast Basin, Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: The USEPA drinking water health advisory for malathion is 500 µg/L.
 Guideline Reference: [2011 Edition of the Drinking Water Standards and Health Advisories](#)

Spatial Representation: Data for this line of evidence for Oso Flaco Creek was collected at 1 monitoring site [Oso Flaco Ck. at OFC Road - 312OFC]

Temporal Representation: Data was collected on a single day 6/10/2009.

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information: Sampling and analysis was conducted following the SWAMP QAPP 2008.

QAPP Information Reference(s): [Surface Water Ambient Monitoring Program Quality Assurance Program Plan](#)

Line of Evidence (LOE) for Decision ID 48895, Malathion
Oso Flaco Creek

Region 3

LOE ID: 55948

Pollutant: Malathion
 LOE Subgroup: Pollutant-Water
 Matrix: Water
 Fraction: Total

Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	1
Number of Exceedances:	1
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed TMDL Project data for Oso Flaco Creek to determine beneficial use support and results are as follows: 1 of 1 samples exceed the criterion for Malathion. An arithmetic mean is calculated when replicates, such as field duplicates, are reported. If a non-detect is one of the results, then one half the reporting limit is used in this calculation.
Data Reference:	Data from Santa Maria River Watershed and Oso Flaco Creek Watershed TMDL Monitoring Study
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Water Quality Control Plan, Central Coast Basin, Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Oso Flaco Creek was collected at 1 monitoring site [Oso Flaco Ck. at OFC Road - 312OFC]
Temporal Representation:	Data was collected on a single day 6/10/2009.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	Sampling and analysis was conducted following the SWAMP QAPP 2008.
QAPP Information Reference(s):	Surface Water Ambient Monitoring Program Quality Assurance Program Plan

Line of Evidence (LOE) for Decision ID 48895, Malathion

Region 3

Oso Flaco Creek

LOE ID:	55940
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	3
Number of Exceedances:	3
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Oso Flaco Creek to determine beneficial use support and results are as follows: 3 of 3 samples exceed the criterion for Malathion.
Data Reference:	Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.

Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Oso Flaco Creek was collected at 1 monitoring site [Oso Flaco Ck. at OFC Road - 312OFC]
Temporal Representation:	Data was collected over the time period 2/14/2007-9/26/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 48895, Malathion

Region 3

Oso Flaco Creek

LOE ID:	55941
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	2
Number of Exceedances:	1
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed CMP data for Oso Flaco Creek to determine beneficial use support and results are as follows: 1 of 2 samples exceed the criterion for Malathion.
Data Reference:	Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Oso Flaco Creek was collected at 1 monitoring site [Oso Flaco Ck. at OFC Road - 312OFC]
Temporal Representation:	Data was collected over the time period 8/23/2006-9/26/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 48895, Malathion

Region 3

Oso Flaco Creek

LOE ID: 55938

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Municipal & Domestic Supply

Number of Samples: 2
Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: Water Board staff assessed CMP data for Oso Flaco Creek to determine beneficial use support and results are as follows: 0 of 2 samples exceed the criterion for Malathion.
Data Reference: [Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: The USEPA drinking water health advisory for malathion is 500 µg/L.
Guideline Reference: [2011 Edition of the Drinking Water Standards and Health Advisories](#)

Spatial Representation: Data for this line of evidence for Oso Flaco Creek was collected at 1 monitoring site [Oso Flaco Ck. at OFC Road - 312OFC]

Temporal Representation: Data was collected over the time period 8/23/2006-9/26/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information: All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.

QAPP Information Reference(s): [Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6](#)

Line of Evidence (LOE) for Decision ID 48895, Malathion**Region 3****Oso Flaco Creek**

LOE ID: 55937

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Municipal & Domestic Supply

Number of Samples: 3
Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING

Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Oso Flaco Creek to determine beneficial use support and results are as follows: 0 of 3 samples exceed the criterion for Malathion.
Data Reference:	<u>Data from Region 3 Conditional Waiver Cooperative Monitoring Program Jan 2007-Jun 2010</u>
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	<u>Water Quality Control Plan for the Central Coastal Basin</u>
Evaluation Guideline:	The USEPA drinking water health advisory for malathion is 500 Åµg/L.
Guideline Reference:	<u>2011 Edition of the Drinking Water Standards and Health Advisories</u>
Spatial Representation:	Data for this line of evidence for Oso Flaco Creek was collected at 1 monitoring site [Oso Flaco Ck. at OFC Road - 312OFC]
Temporal Representation:	Data was collected over the time period 2/14/2007-9/26/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.
QAPP Information Reference(s):	<u>Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6</u>

DECISION ID	54050	Region 3
Pajaro River Estuary		

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (TMDL required list)
Last Listing Cycle's Final Listing Decision: New Decision
Revision Status Revised
Sources: Source Unknown
Expected TMDL Completion Date: 2023
Impairment from Pollutant or Pollution: Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. Three of the 30 samples exceed the evaluation guideline for the protection of aquatic life uses but none of the 30 sample exceed the evaluation guideline for the protection of the Municipal and Domestic Life use.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section 303(d) List.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Three of the 30 samples exceed the evaluation guideline for the protection of aquatic life uses and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

**Line of Evidence (LOE) for Decision ID 54050, Malathion
Pajaro River Estuary**

Region 3

LOE ID: 94130

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: None

Beneficial Use: Warm Freshwater Habitat

Number of Samples: 30
Number of Exceedances: 3

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: State Water Board staff assessed USGS data for Pajaro River Estuary to determine beneficial use support and results are as follows: 3 of 30 samples exceed the criterion for MALATHION.

Data Reference: [Data for various pollutants in the Pajaro, Salinas, and Santa Maria River estuaries, Jan. 2008-Oct. 2009](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.

Guideline Reference: [Aquatic life water quality criteria derived via the UC Davis method. II. Pyrethroid insecticides. Reviews of Environmental Contamination and Toxicology 216 51-103.](#)

Spatial Representation: Data for this line of evidence for Pajaro River Estuary was collected at 2 monitoring sites [Pajaro River Estuary Lower - 305PJE_L, Pajaro River Estuary Upper - 305PJE_U]

Temporal Representation: Data was collected over the time period 1/6/2008-10/28/2009.

Environmental Conditions:

QAPP Information: USGS QAPP

QAPP Information Reference(s): [2002. Quality Assurance Management Plan for the State of California's Surface Water Ambient Monitoring Program. California Department of Fish and Game, Monterey, CA](#)

**Line of Evidence (LOE) for Decision ID 54050, Malathion
Pajaro River Estuary**

Region 3

LOE ID:	94219
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	None
Beneficial Use:	Municipal & Domestic Supply
Number of Samples:	30
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed USGS data for Pajaro River Estuary to determine beneficial use support and results are as follows: 0 of 30 samples exceed the criterion for MALATHION.
Data Reference:	<u>Data for various pollutants in the Pajaro, Salinas, and Santa Maria River estuaries, Jan. 2008-Oct. 2009</u>
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	<u>Water Quality Control Plan for the Central Coastal Basin</u>
Evaluation Guideline:	The USEPA drinking water health advisory for malathion is 500 Åµg/L.
Guideline Reference:	<u>2011 Edition of the Drinking Water Standards and Health Advisories</u>
Spatial Representation:	Data for this line of evidence for Pajaro River Estuary was collected at 2 monitoring sites [Pajaro River Estuary Lower - 305PJE_L, Pajaro River Estuary Upper - 305PJE_U]
Temporal Representation:	Data was collected over the time period 1/6/2008-10/28/2009.
Environmental Conditions:	
QAPP Information:	USGS QAPP
QAPP Information Reference(s):	<u>2002. Quality Assurance Management Plan for the State of California's Surface Water Ambient Monitoring Program. California Department of Fish and Game. Monterey, CA</u>

Line of Evidence (LOE) for Decision ID 54050, Malathion
Pajaro River Estuary

Region 3

LOE ID:	94218
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	None
Beneficial Use:	Cold Freshwater Habitat
Number of Samples:	30
Number of Exceedances:	3
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed USGS data for Pajaro River Estuary to determine beneficial use support and results are as follows: 3 of 30 samples exceed the criterion for MALATHION.
Data Reference:	<u>Data for various pollutants in the Pajaro, Salinas, and Santa Maria River estuaries, Jan. 2008-Oct. 2009</u>

SWAMP Data:

Non-SWAMP

Water Quality Objective/Criterion:

Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference:

Water Quality Control Plan for the Central Coastal Basin

Evaluation Guideline:

UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.

Guideline Reference:

Aquatic life water quality criteria derived via the UC Davis method: II. Pyrethroid insecticides. Reviews of Environmental Contamination and Toxicology 216 51-103.

Spatial Representation:

Data for this line of evidence for Pajaro River Estuary was collected at 2 monitoring sites [Pajaro River Estuary Lower - 305PJE_L, Pajaro River Estuary Upper - 305PJE_U]

Temporal Representation:

Data was collected over the time period 1/6/2008-10/28/2009.

Environmental Conditions:

QAPP Information:

USGS QAPP

QAPP Information Reference(s):

2002. Quality Assurance Management Plan for the State of California's Surface Water Ambient Monitoring Program. California Department of Fish and Game. Monterey, CA

DECISION ID	49260	Region 3
Quail Creek		

Pollutant:	Malathion
Final Listing Decision:	List on 303(d) list (TMDL required list)
Last Listing Cycle's Final Listing Decision:	New Decision
Revision Status	Revised
Sources:	Source Unknown
Expected TMDL Completion Date:	2027
Impairment from Pollutant or Pollution:	Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Nine lines of evidence are available in the administrative record to assess this pollutant. Zero of the 24 samples exceed the evaluation guideline for Municipal and Domestic Supply use (i.e. drinking water). Three of the eight samples exceed the evaluation guideline used to interpret the water quality objective for aquatic life protection. Note the sample count is eight and although 24 samples were collected, 16

samples are reported as 'non-detect' and the laboratory method detection limit was above the guideline, therefore the results could not be quantified with the level of certainty required by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section 303(d) List.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Three of the eight samples exceed the evaluation guideline used to interpret the water quality objective for aquatic life protection and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

**Line of Evidence (LOE) for Decision ID 49260, Malathion
Quail Creek**

Region 3

LOE ID:	57014
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Cold Freshwater Habitat
Number of Samples:	2
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed CMP data for Quail Creek to determine beneficial use support and results are as follows: 0 of 2 samples exceed the criterion for Malathion.
Data Reference:	Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Quail Creek was collected at 1 monitoring site [Quail Creek - 309QUI]
Temporal Representation:	Data was collected over the time period 8/24/2006-9/28/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver

monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).
 Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.
 QAPP Information: All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.
 QAPP Information Reference(s): [Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6](#)

Line of Evidence (LOE) for Decision ID 49260, Malathion
Quail Creek

Region 3

LOE ID: 57012

Pollutant: Malathion
 LOE Subgroup: Pollutant-Water
 Matrix: Water
 Fraction: Total

Beneficial Use: Cold Freshwater Habitat

Number of Samples: 3
 Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
 Data Used to Assess Water Quality: State Water Board staff assessed CMP data for Quail Creek to determine beneficial use support and results are as follows: 0 of 3 samples exceed the criterion for Malathion.
 Data Reference: [Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
 Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
 Guideline Reference: [Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.](#)

Spatial Representation: Data for this line of evidence for Quail Creek was collected at 1 monitoring site [Quail Creek - 309QUI]

Temporal Representation: Data was collected over the time period 2/15/2007-9/26/2007.

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.
 QAPP Information: The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.
 QAPP Information Reference(s): [Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6](#)

Line of Evidence (LOE) for Decision ID 49260, Malathion
Quail Creek

Region 3

LOE ID: 57013

Pollutant: Malathion
 LOE Subgroup: Pollutant-Water
 Matrix: Water
 Fraction: Total

Beneficial Use: Warm Freshwater Habitat

Number of Samples:	2
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed CMP data for Quail Creek to determine beneficial use support and results are as follows: 0 of 2 samples exceed the criterion for Malathion.
Data Reference:	Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Quail Creek was collected at 1 monitoring site [Quail Creek - 309QUI]
Temporal Representation:	Data was collected over the time period 8/24/2006-9/28/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 49260, Malathion

Region 3

Quail Creek

LOE ID:	57010
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Municipal & Domestic Supply
Number of Samples:	19
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed DPR data for Quail Creek to determine beneficial use support and results are as follows: 0 of 19 samples exceed the criterion for Malathion.
Data Reference:	Final Data File used for assessment: Department of Pesticide Regulation Data_2003-2005
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which

produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference:

[Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline:

The USEPA drinking water life-time health advisory for malathion is 500 Åµg/L.

Guideline Reference:

[2011 Edition of the Drinking Water Standards and Health Advisories](#)

Spatial Representation:

Data for this line of evidence for Quail Creek was collected at 1 monitoring site [Quail Creek - 309QUI]

Temporal Representation:

Data was collected over the time period 6/16/2003-5/3/2005.

Environmental Conditions:

Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information:

All data was collected and analyzed following Department of Pesticide Regulation Standard Operating Procedures (Available online at <http://www.cdpr.ca.gov/docs/emon/pubs/sop.htm>).

QAPP Information Reference(s):

Line of Evidence (LOE) for Decision ID 49260, Malathion

Region 3

Quail Creek

LOE ID: 57008

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Municipal & Domestic Supply

Number of Samples: 3
Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: State Water Board staff assessed CMP data for Quail Creek to determine beneficial use support and results are as follows: 0 of 3 samples exceed the criterion for Malathion.
Data Reference: [Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.

Objective/Criterion Reference:

[Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline:

The USEPA drinking water health advisory for malathion is 500 Åµg/L.

Guideline Reference:

[2011 Edition of the Drinking Water Standards and Health Advisories](#)

Spatial Representation:

Data for this line of evidence for Quail Creek was collected at 1 monitoring site [Quail Creek - 309QUI]

Temporal Representation:

Data was collected over the time period 2/15/2007-9/26/2007.

Environmental Conditions:

Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information:

The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.

QAPP Information Reference(s):

[Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6](#)

Line of Evidence (LOE) for Decision ID 49260, Malathion

Region 3

Quail Creek

LOE ID: 57015

Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	3
Number of Exceedances:	3
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed DPR data for Quail Creek to determine beneficial use support. Nineteen samples were collected and three of those sample results exceeded the guideline, however the remaining sixteen samples were non-detect and the laboratory method detection limit was above the guideline, therefore the results could not be quantified with the level of certainty required by the Listing Policy.
Data Reference:	Final Data File used for assessment: Department of Pesticide Regulation Data, 2003-2005
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Quail Creek was collected at 1 monitoring site [Quail Creek - 309QUI]
Temporal Representation:	Data was collected over the time period 6/16/2003-5/3/2005.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	All data was collected and analyzed following Department of Pesticide Regulation Standard Operating Procedures (Available online at http://www.cdpr.ca.gov/docs/emon/pubs/sop.htm).
QAPP Information Reference(s):	

Line of Evidence (LOE) for Decision ID 49260, Malathion

Region 3

Quail Creek

LOE ID:	57011
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	3
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Quail Creek to determine beneficial use support and results are as follows: 0 of 3 samples exceed the criterion for Malathion.
Data Reference:	Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun.

2010

SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Quail Creek was collected at 1 monitoring site [Quail Creek - 309QUI]
Temporal Representation:	Data was collected over the time period 2/15/2007-9/26/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 49260, Malathion

Region 3

Quail Creek

LOE ID:	57019
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Cold Freshwater Habitat
Number of Samples:	3
Number of Exceedances:	3
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed DPR data for Quail Creek to determine beneficial use support. Nineteen samples were collected and three of those sample results exceeded the guideline, however the remaining sixteen samples were non-detect and the laboratory method detection limit was above the guideline, therefore the results could not be quantified with the level of certainty required by the Listing Policy.
Data Reference:	Final Data File used for assessment: Department of Pesticide Regulation Data_2003-2005
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Quail Creek was collected at 1 monitoring site [Quail Creek - 309QUI]

Temporal Representation:	Data was collected over the time period 6/16/2003-5/3/2005.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	All data was collected and analyzed following Department of Pesticide Regulation Standard Operating Procedures (Available online at http://www.cdpr.ca.gov/docs/emon/pubs/sop.htm).

QAPP Information Reference(s):

**Line of Evidence (LOE) for Decision ID 49260, Malathion
Quail Creek**

Region 3

LOE ID:	57009
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Municipal & Domestic Supply
Number of Samples:	2
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed CMP data for Quail Creek to determine beneficial use support and results are as follows: 0 of 2 samples exceed the criterion for Malathion.
Data Reference:	Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	The USEPA drinking water health advisory for malathion is 500 µg/L.
Guideline Reference:	2011 Edition of the Drinking Water Standards and Health Advisories
Spatial Representation:	Data for this line of evidence for Quail Creek was collected at 1 monitoring site [Quail Creek - 309QUI]
Temporal Representation:	Data was collected over the time period 8/24/2006-9/28/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

DECISION ID	49332	Region 3
Salinas Reclamation Canal		

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (TMDL required list)
Last Listing Cycle's Final Listing Decision: New Decision
Revision Status Revised
Sources: Source Unknown
Expected TMDL Completion Date: 2027
Impairment from Pollutant or Pollution: Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. Four of the 11 samples exceed the evaluation guideline used to interpret the water quality objective for aquatic life protection.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section 303(d) List.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Four of the 11 samples exceed the evaluation guideline and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

**Line of Evidence (LOE) for Decision ID 49332, Malathion
Salinas Reclamation Canal**

Region 3

LOE ID:	57069
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	6
Number of Exceedances:	3
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Salinas Reclamation Canal to determine beneficial use support and results are as follows: 3 of 6 samples exceed the criterion for Malathion.
Data Reference:	Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Salinas Reclamation Canal was collected at 2 monitoring sites [Salinas Reclamation Canal - 309ALG, Salinas Reclamation Canal - 309JON]
Temporal Representation:	Data was collected over the time period 2/14/2007-9/26/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 49332, Malathion**Region 3****Salinas Reclamation Canal**

LOE ID:	57070
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	4
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed CMP data for Salinas Reclamation Canal to determine beneficial use support and results are as follows: 0 of 4 samples exceed the criterion for Malathion.
Data Reference:	Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216: 1-48.
Spatial Representation:	Data for this line of evidence for Salinas Reclamation Canal was collected at 2 monitoring sites [Salinas Reclamation Canal - 309ALG, Salinas Reclamation Canal - 309JON]
Temporal Representation:	Data was collected over the time period 8/23/2006-9/27/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 49332, Malathion**Region 3****Salinas Reclamation Canal**

LOE ID:	57071
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total

Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	1
Number of Exceedances:	1
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed DPR data for Salinas Reclamation Canal to determine beneficial use support. Nineteen samples were collected and one of those sample results exceeded the guideline, however the remaining eighteen samples were non-detect and the laboratory method detection limit was above the guideline, therefore the results could not be quantified with the level of certainty required by the Listing Policy.
Data Reference:	<u>Final Data File used for assessment: Department of Pesticide Regulation Data_2003-2005</u>
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	<u>Water Quality Control Plan for the Central Coastal Basin</u>
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	<u>Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.</u>
Spatial Representation:	Data for this line of evidence for Salinas Reclamation Canal was collected at 2 monitoring sites [Salinas Reclamation Canal - 309JON, & Salinas Reclamation Canal - 309REC]
Temporal Representation:	Data was collected over the time period 6/16/2003-5/3/2005.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	All data was collected and analyzed following Department of Pesticide Regulation Standard Operating Procedures (Available online at http://www.cdpr.ca.gov/docs/emon/pubs/sop.htm).
QAPP Information Reference(s):	

DECISION ID	52003	Region 3
Santa Maria River Estuary		

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (being addressed by USEPA approved TMDL)
Last Listing Cycle's Final Listing Decision: New Decision
Revision Status Revised
Sources: Agriculture
TMDL Name: Santa Maria River Watershed Toxicity and Pesticides TMDL
TMDL Project Code: 1081
Date TMDL Approved by USEPA: 08/31/2015
Impairment from Pollutant or Pollution: Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the section 303(d) list under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. Thirteen out of thirteen water samples exceed the evaluation guideline applied to protect for aquatic life beneficial uses. Seventeen sample results were not used in the assessment because the laboratory data reporting limit(s) was above the objective and therefore the results could not be quantified with the level of certainty required by the Listing Policy. Zero of thirty samples exceed the evaluation guideline applied to protect for the municipal beneficial use.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification to place it in the Being Addressed portion of the 303(d) list. In accordance with section 2.2 of the Policy there is sufficient justification to place it in the Being Addressed portion of the 303(d) list because a TMDL has been completed and approved by RWQCB and USEPA, and is expected to result in attainment of the standard.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Thirteen out of thirteen samples exceed the evaluation guideline set to protect for aquatic life beneficial uses and these exceed the allowable frequency listed in Table 3.1 of the Listing Policy.
4. The Santa Maria River Watershed Toxicity and Pesticides TMDL has been approved by the USEPA on August 31, 2015.

5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation:

After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Furthermore, this pollutant waterbody combination should be placed in the 'Being Addressed' portion of the 303(d) list because a TMDL has been completed and approved by RWQCB and USEPA, and is expected to result in attainment of the standard.

Line of Evidence (LOE) for Decision ID 52003, Malathion

Region 3

Santa Maria River Estuary

LOE ID:	58222
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Dissolved
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	13
Number of Exceedances:	13
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed USGS data for Santa Maria River Estuary to determine beneficial use support and results are as follows: 13 of 13 samples exceed the criterion for MALATHION. Seventeen sample results were not used in the assessment because the laboratory data reporting limit(s) was above the objective and therefore the results could not be quantified with the level of certainty required by the Listing Policy.
Data Reference:	Data for various pollutants in the Pajaro, Salinas, and Santa Maria River estuaries, Jan. 2008-Oct. 2009
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Central Coast Basin Plan General Objective).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: II. Pyrethroid insecticides. Reviews of Environmental Contamination and Toxicology 216 51-103.
Spatial Representation:	Data for this line of evidence for Santa Maria River Estuary was collected at 2 monitoring sites [Santa Maria River Estuary Lower - 312SME_L, Santa Maria River Estuary Upper - 312SME_U]
Temporal Representation:	Data was collected over the time period 1/5/2008-10/29/2009.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the Watershed-scale Evaluation of Agricultural BMP Effectiveness Protecting Critical Coastal Habitats project. A QAPP was provided and the data was analyzed at the Marine Pollution Studies Laboratory and submitted in SWAMP format.
QAPP Information Reference(s):	Surface Water Ambient Monitoring Program Quality Assurance Program Plan

Line of Evidence (LOE) for Decision ID 52003, Malathion

Region 3

Santa Maria River Estuary

LOE ID:	58217
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Dissolved
Beneficial Use:	Municipal & Domestic Supply
Number of Samples:	30
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed USGS data for Santa Maria River Estuary to determine beneficial use support and results are as follows: 0 of 30 samples exceed the criterion for MALATHION.
Data Reference:	<u>Data for various pollutants in the Pajaro, Salinas, and Santa Maria River estuaries, Jan. 2008-Oct. 2009</u>
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Central Coast Basin Plan General Objective).
Objective/Criterion Reference:	<u>Water Quality Control Plan for the Central Coastal Basin</u>
Evaluation Guideline:	The USEPA drinking water health advisory for malathion is 500 Åµg/L.
Guideline Reference:	<u>2011 Edition of the Drinking Water Standards and Health Advisories</u>
Spatial Representation:	Data for this line of evidence for Santa Maria River Estuary was collected at 2 monitoring sites [Santa Maria River Estuary Lower - 312SME_L, Santa Maria River Estuary Upper - 312SME_U]
Temporal Representation:	Data was collected over the time period 1/5/2008-10/29/2009.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the Watershed-scale Evaluation of Agricultural BMP Effectiveness Protecting Critical Coastal Habitats project. A QAPP was provided and the data was analyzed at the Marine Pollution Studies Laboratory and submitted in SWAMP format.
QAPP Information Reference(s):	<u>Surface Water Ambient Monitoring Program Quality Assurance Program Plan</u>

DECISION ID	52001	Region 3
Santa Maria River		

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (being addressed by USEPA approved TMDL)
Last Listing Cycle's Final Listing Decision: New Decision
Revision Status Revised
Sources: Agriculture
TMDL Name: Santa Maria River Watershed Toxicity and Pesticides TMDL
TMDL Project Code: 1081
Date TMDL Approved by USEPA: 08/31/2015
Impairment from Pollutant or Pollution: Pollutant

Regional Board Staff This pollutant is being considered for placement on the section 303(d) list under section 3.1 of the

Conclusion:

Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Nine lines of evidence are available in the administrative record to assess this pollutant. Three out of seven water samples exceed the evaluation guideline applied to protect for aquatic life beneficial uses. Zero of seven samples exceed the evaluation guideline applied to protect for the municipal beneficial use. For the municipal beneficial use, this sample size is insufficient to determine, with the power and confidence of the Listing Policy, the applicable beneficial use support rating. A minimum of 16 samples is needed to determine if a beneficial use is supported using table 3.1.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification to place it in the Being Addressed portion of the 303(d) list. In accordance with section 2.2 of the Policy there is sufficient justification to place it in the Being Addressed portion of the 303(d) list because a TMDL has been completed and approved by RWQCB and USEPA, and is expected to result in attainment of the standard.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Three out of seven samples exceed the evaluation guideline set to protect for aquatic life beneficial uses and these exceed the allowable frequency listed in Table 3.1 of the Listing Policy.
4. The Santa Maria River Watershed Toxicity and Pesticides TMDL has been approved by the USEPA on August 31, 2015.
5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation:

After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Furthermore, this pollutant waterbody combination should be placed in the 'Being Addressed' portion of the 303(d) list because a TMDL has been completed and approved by RWQCB and USEPA, and is expected to result in attainment of the standard.

Line of Evidence (LOE) for Decision ID 52001, Malathion**Region 3****Santa Maria River**

LOE ID:	58562
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Cold Freshwater Habitat
Number of Samples:	1
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed TMDL Project data for Santa Maria River to determine beneficial use support and results are as follows: 0 of 1 samples exceed the criterion for Malathion. An arithmetic mean is calculated when replicates, such as field duplicates, are reported. If a non-detect is one of the results, then one half the reporting limit is used in this calculation.
Data Reference:	Data from Santa Maria River Watershed and Oso Flaco Creek Watershed TMDL Monitoring Study

SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Water Quality Control Plan, Central Coast Basin, Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Santa Maria River was collected at 1 monitoring site [Santa Maria River - 312SMA]
Temporal Representation:	Data was collected on a single day 2/3/2009.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	Sampling and analysis was conducted following the SWAMP QAPP 2008.
QAPP Information Reference(s):	Surface Water Ambient Monitoring Program Quality Assurance Program Plan

Line of Evidence (LOE) for Decision ID 52001, Malathion

Region 3

Santa Maria River

LOE ID:	58561
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	1
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed TMDL Project data for Santa Maria River to determine beneficial use support and results are as follows: 0 of 1 samples exceed the criterion for Malathion. An arithmetic mean is calculated when replicates, such as field duplicates, are reported. If a non-detect is one of the results, then one half the reporting limit is used in this calculation.
Data Reference:	Data from Santa Maria River Watershed and Oso Flaco Creek Watershed TMDL Monitoring Study
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Water Quality Control Plan, Central Coast Basin, Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Santa Maria River was collected at 1 monitoring site [Santa Maria River - 312SMA]
Temporal Representation:	Data was collected on a single day 2/3/2009.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information: Sampling and analysis was conducted following the SWAMP QAPP 2008.
QAPP Information Reference(s): [Surface Water Ambient Monitoring Program Quality Assurance Program Plan](#)

Line of Evidence (LOE) for Decision ID 52001, Malathion
Santa Maria River

Region 3

LOE ID: 58560

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Cold Freshwater Habitat

Number of Samples: 3
Number of Exceedances: 1

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: Water Board staff assessed CMP data for Santa Maria River to determine beneficial use support and results are as follows: 1 of 3 samples exceed the criterion for Malathion.
Data Reference: [Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference: [Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.](#)

Spatial Representation: Data for this line of evidence for Santa Maria River was collected at 2 monitoring sites [Santa Maria River - 312SMA, Santa Maria River - 312SMI]

Temporal Representation: Data was collected over the time period 8/23/2006-9/27/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information: All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.

QAPP Information Reference(s): [Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6](#)

Line of Evidence (LOE) for Decision ID 52001, Malathion
Santa Maria River

Region 3

LOE ID: 58549

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	3
Number of Exceedances:	1
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Water Board staff assessed CMP data for Santa Maria River to determine beneficial use support and results are as follows: 1 of 3 samples exceed the criterion for Malathion.
Data Reference:	<u>Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data</u>
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	<u>Water Quality Control Plan for the Central Coastal Basin</u>
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	<u>Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.</u>
Spatial Representation:	Data for this line of evidence for Santa Maria River was collected at 2 monitoring sites [Santa Maria River - 312SMA, Santa Maria River - 312SMI]
Temporal Representation:	Data was collected over the time period 8/23/2006-9/27/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.
QAPP Information Reference(s):	<u>Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6</u>

Line of Evidence (LOE) for Decision ID 52001, Malathion
Santa Maria River

Region 3

LOE ID:	58548
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Cold Freshwater Habitat
Number of Samples:	3
Number of Exceedances:	2
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Santa Maria River to determine beneficial use support and results are as follows: 2 of 3 samples exceed the criterion for Malathion.
Data Reference:	<u>Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010</u>
SWAMP Data:	Non-SWAMP

Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Santa Maria River was collected at 1 monitoring site [Santa Maria River - 312SMA]
Temporal Representation:	Data was collected over the time period 2/14/2007-9/26/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 52001, Malathion Santa Maria River

Region 3

LOE ID:	58547
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	3
Number of Exceedances:	2
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Santa Maria River to determine beneficial use support and results are as follows: 2 of 3 samples exceed the criterion for Malathion.
Data Reference:	Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.
Spatial Representation:	Data for this line of evidence for Santa Maria River was collected at 1 monitoring site [Santa Maria River - 312SMA]
Temporal Representation:	Data was collected over the time period 2/14/2007-9/26/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 52001, Malathion

Region 3

Santa Maria River

LOE ID: 58546

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Municipal & Domestic Supply

Number of Samples: 1
Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: Water Board staff assessed TMDL Project data for Santa Maria River to determine beneficial use support and results are as follows: 0 of 1 samples exceed the criterion for Malathion. An arithmetic mean is calculated when replicates, such as field duplicates, are reported. If a non-detect is one of the results, then one half the reporting limit is used in this calculation.

Data Reference: [Data from Santa Maria River Watershed and Oso Flaco Creek Watershed TMDL Monitoring Study](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life (Water Quality Control Plan, Central Coast Basin, Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: The USEPA drinking water health advisory for malathion is 500 Åµg/L.
Guideline Reference: [2011 Edition of the Drinking Water Standards and Health Advisories](#)

Spatial Representation: Data for this line of evidence for Santa Maria River was collected at 1 monitoring site [Santa Maria River - 312SMA]

Temporal Representation: Data was collected on a single day 2/3/2009.

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information: Sampling and analysis was conducted following the SWAMP QAPP 2008.

QAPP Information Reference(s): [Surface Water Ambient Monitoring Program Quality Assurance Program Plan](#)

Line of Evidence (LOE) for Decision ID 52001, Malathion**Region 3****Santa Maria River**

LOE ID: 58532

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Municipal & Domestic Supply

Number of Samples: 3
Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: Water Board staff assessed CMP data for Santa Maria River to determine beneficial use support and results are as follows: 0 of 3 samples exceed the criterion for Malathion.

Data Reference: [Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data](#)

SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	The USEPA drinking water health advisory for malathion is 500 Åµg/L.
Guideline Reference:	2011 Edition of the Drinking Water Standards and Health Advisories
Spatial Representation:	Data for this line of evidence for Santa Maria River was collected at 2 monitoring sites [Santa Maria River - 312SMA, Santa Maria River - 312SMI]
Temporal Representation:	Data was collected over the time period 8/23/2006-9/27/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.
QAPP Information Reference(s):	Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6

Line of Evidence (LOE) for Decision ID 52001, Malathion

Region 3

Santa Maria River

LOE ID:	58531
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total
Beneficial Use:	Municipal & Domestic Supply
Number of Samples:	3
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed CMP data for Santa Maria River to determine beneficial use support and results are as follows: 0 of 3 samples exceed the criterion for Malathion.
Data Reference:	Data from Region 3 Conditional Waiver Cooperative Monitoring Program, Jan. 2007-Jun. 2010
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	The USEPA drinking water health advisory for malathion is 500 Åµg/L.
Guideline Reference:	2011 Edition of the Drinking Water Standards and Health Advisories
Spatial Representation:	Data for this line of evidence for Santa Maria River was collected at 1 monitoring site [Santa Maria River - 312SMA]
Temporal Representation:	Data was collected over the time period 2/14/2007-9/26/2007.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.

DECISION ID	52008	Region 3
Tembladero Slough		

Pollutant:	Malathion
Final Listing Decision:	List on 303(d) list (TMDL required list)
Last Listing Cycle's Final	New Decision

Listing Decision:
Revision Status Revised
Sources: Source Unknown
Expected TMDL Completion Date: 2027
Impairment from Pollutant or Pollution: Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the section 303(d) list under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. Two out of five water samples exceeded the evaluation guideline applied to protect for aquatic life beneficial uses.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification to place it in the Being Addressed portion of the 303(d) list.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Two of five water samples exceeded the evaluation guideline set to protect for aquatic life beneficial uses and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Line of Evidence (LOE) for Decision ID 52008, Malathion Tembladero Slough

Region 3

LOE ID: 58650

Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total

Beneficial Use: Warm Freshwater Habitat

Number of Samples: 3
Number of Exceedances: 2

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: State Water Board staff assessed CMP data for Tembladero Slough to determine beneficial use support and results are as follows: 2 of 3 samples exceed the criterion for Malathion.

Data Reference: [Data from Region 3 Conditional Waiver Cooperative Monitoring Program Jan. 2007-Jun. 2010](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.

Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day

average concentration of Malathion does not exceed 0.028 ug/L.

Guideline Reference: [Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.](#)

Spatial Representation: Data for this line of evidence for Tembladero Slough was collected at 1 monitoring site [Tembladero Slough - 309TEH]

Temporal Representation: Data was collected over the time period 2/15/2007-9/25/2007.

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information: The data was collected for the CCRWQCB Cooperative Monitoring Program for Agriculture data and provided in SWAMP format.

QAPP Information Reference(s): [Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6](#)

Line of Evidence (LOE) for Decision ID 52008, Malathion
Tembladero Slough

Region 3

LOE ID: 58649

Pollutant: Malathion

LOE Subgroup: Pollutant-Water

Matrix: Water

Fraction: Total

Beneficial Use: Warm Freshwater Habitat

Number of Samples: 2

Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING

Data Used to Assess Water Quality: Water Board staff assessed CMP data for Tembladero Slough to determine beneficial use support and results are as follows: 0 of 2 samples exceed the criterion for Malathion.

Data Reference: [Final Data File used for assessment: Central Coast Water Quality Preservation Inc water quality data](#)

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).

Objective/Criterion Reference: [Water Quality Control Plan for the Central Coastal Basin](#)

Evaluation Guideline: UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.

Guideline Reference: [Aquatic life water quality criteria derived via the UC Davis method: I. Organophosphate insecticides. Reviews of Environmental Contamination and Toxicology 216:1-48.](#)

Spatial Representation: Data for this line of evidence for Tembladero Slough was collected at 1 monitoring site [Tembladero Slough - 309TEH]

Temporal Representation: Data was collected over the time period 8/23/2006-9/27/2006. Cooperative Monitoring Program (CMP) staff conduct monitoring for conventional pollutants at all Ag Waiver monitoring sites monthly. CMP staff also conduct water toxicity monitoring quarterly and sediment toxicity monitoring annually (in spring).

Environmental Conditions: Staff is not aware of any special conditions that might affect interpretation of the data.

QAPP Information: All data was collected following the Standard Operating Procedures and Data Quality Objectives outlined in the Cooperative Monitoring Program QAPP, (Clark and Ogle 2006). QA data are included in submission. All data are flagged as appropriate.

QAPP Information Reference(s): [Quality Assurance Project Plan for Monitoring for the Region 3 Conditional Ag Waiver Cooperative Monitoring Program, Revision 6](#)

DECISION ID	54010	Region 3
Watsonville Slough		

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (TMDL required list)
Last Listing Cycle's Final Listing Decision: New Decision
Revision Status Revised
Sources: Source Unknown
Expected TMDL Completion Date: 2027
Impairment from Pollutant or Pollution: Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the section 303(d) list under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Two out of nine water samples exceeded the evaluation guideline applied to protect for aquatic life beneficial uses.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section 303(d) List.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Two of nine water samples exceeded the evaluation guideline set to protect for aquatic life beneficial

uses and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.

4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation:

After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

**Line of Evidence (LOE) for Decision ID 54010, Malathion
Watsonville Slough**

Region 3

LOE ID:	94178
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	None
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	9
Number of Exceedances:	2
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	State Water Board staff assessed USGS data for Watsonville Slough to determine beneficial use support and results are as follows: 2 of 9 samples exceed the criterion for MALATHION.
Data Reference:	Data for various pollutants in the Pajaro, Salinas, and Santa Maria River estuaries, Jan 2008-Oct 2009
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Water Quality Control Plan for the Central Coastal Basin (CCRWQCB 2011): All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. (Chapter III, Section II.A.2 Objectives for all Inland and Surface Waters, Enclosed Bays and Estuaries).
Objective/Criterion Reference:	Water Quality Control Plan for the Central Coastal Basin
Evaluation Guideline:	UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.
Guideline Reference:	Aquatic life water quality criteria derived via the UC Davis method: II. Pyrethroid insecticides. Reviews of Environmental Contamination and Toxicology 216:51-103.
Spatial Representation:	Data for this line of evidence for Watsonville Slough was collected at 1 monitoring site [305WAT-Watsonville Slough below Beach Street Input - 305WAB]
Temporal Representation:	Data was collected over the time period 1/7/2008-10/28/2009.
Environmental Conditions:	
QAPP Information:	USGS QAPP
QAPP Information Reference(s):	2002 Quality Assurance Management Plan for the State of California's Surface Water Ambient Monitoring Program, California Department of Fish and Game, Monterey, CA

DECISION ID	66911	Region 8
Newport Bay, Upper (Ecological Reserve)		

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (TMDL required list)
Last Listing Cycle's Final Listing Decision: New Decision
Revision Status: Revised
Sources: Source Unknown
Expected TMDL Completion Date: 2027
Impairment from Pollutant or Pollution: Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant.
 Ten of the 91 samples exceed the maximum (instantaneous) concentration in saltwater.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section 303(d) List.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Ten of the 91 samples exceed the maximum (instantaneous) concentration in saltwater and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Line of Evidence (LOE) for Decision ID 66911, Malathion	Region 8
Newport Bay, Upper (Ecological Reserve)	

LOE ID: 81978
Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total Dissolved
Beneficial Use: Estuarine Habitat

Number of Samples:	91
Number of Exceedances:	10
Data and Information Type:	Fixed station physical/chemical (conventional plus toxic pollutants)
Data Used to Assess Water Quality:	Ten of the 91 samples exceeded the maximum concentration for Malathion of 100 ng/L.
Data Reference:	<u>Data for Various Waterbodies in Region 8 and Region 9, 2006-2009.</u>
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded.
Objective/Criterion Reference:	<u>California Ocean Plan Water Quality Control Plan Ocean Waters of California 2009</u>
Evaluation Guideline:	The maximum (Instantaneous) concentration for Malathion in saltwater is 100 ng/L.
Guideline Reference:	<u>Quality Criteria for Water. USEPA Office of Water and Hazardous Materials. Washington, D.C</u>
Spatial Representation:	Samples were collected at sites: UNBCHB, UNBJAM, UNBNSB and UNBSDC.
Temporal Representation:	Samples were collected 2006 to 2009.
Environmental Conditions:	
QAPP Information:	Data were submitted with the County of Orange Stormwater Program Quality Assurance Management Plan (QAMP) dated January 2010. However, data were collected prior to the development of this QAMP, therefore the quality of these data are unknown.
QAPP Information Reference(s):	

DECISION ID	65624	Region 8
Peters Canyon Channel		

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (TMDL required list)
Last Listing Cycle's Final Listing Decision: New Decision
Revision Status: Revised
Sources: Source Unknown
Expected TMDL Completion Date: 2027
Impairment from Pollutant or Pollution: Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1, a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Six (6) of the sixty-seven (67) samples exceed the beneficial use criterion.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section 303(d) List.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Six (6) of the sixty-seven (67) samples exceed the beneficial use criterion and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Line of Evidence (LOE) for Decision ID 65624, Malathion	Region 8
Peters Canyon Channel	

LOE ID: 82067
Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total Dissolved
Beneficial Use: Warm Freshwater Habitat
Number of Samples: 67

Number of Exceedances:	6
Data and Information Type:	Fixed station physical/chemical (conventional plus toxic pollutants)
Data Used to Assess Water Quality:	Six of sixty seven samples exceed the maximum (Instantaneous) concentration for Malathion in freshwater of 100 ng/L.
Data Reference:	<u>Data for Various Waterbodies in Region 8 and Region 9, 2006-2009.</u>
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	The concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
Objective/Criterion Reference:	<u>Water Quality Control Plan, Santa Ana River Basin</u>
Evaluation Guideline:	The maximum (Instantaneous) concentration for Malathion in freshwater is 100 ng/L.
Guideline Reference:	<u>Quality Criteria for Water. USEPA Office of Water and Hazardous Materials. Washington, D.C</u>
Spatial Representation:	Samples were collected at sites: BARSED and BPF06
Temporal Representation:	Samples were collected from 2006 to 2009.
Environmental Conditions:	
QAPP Information:	Data were submitted with the County of Orange Stormwater Program Quality Assurance Management Plan (QAMP) dated January 2010. However, data were collected prior to the development of this QAMP, therefore the quality of these data are unknown.
QAPP Information Reference(s):	

DECISION ID	66930	Region 8
San Diego Creek Reach 1		

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (TMDL required list)
Last Listing Cycle's Final Listing Decision: New Decision
Revision Status: Revised
Sources: Source Unknown
Expected TMDL Completion Date: 2027
Impairment from Pollutant or Pollution: Pollutant

Regional Board Staff Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Eight (8) of the sixty-seven (67) samples exceed the beneficial use criterion.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section 303(d) List.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Eight (8) of the sixty-seven (67) samples exceed the beneficial use criterion and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Staff Decision Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Line of Evidence (LOE) for Decision ID 66930, Malathion	Region 8
San Diego Creek Reach 1	

LOE ID: 82201
Pollutant: Malathion
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total Dissolved
Beneficial Use: Warm Freshwater Habitat

Number of Samples:	67
Number of Exceedances:	8
Data and Information Type:	Fixed station physical/chemical (conventional plus toxic pollutants)
Data Used to Assess Water Quality:	Eight of sixty seven samples exceed the maximum (Instantaneous) concentration for Malathion in freshwater of 100 ng/L.
Data Reference:	<u>Data for Various Waterbodies in Region 8 and Region 9, 2006-2009.</u>
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	The concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
Objective/Criterion Reference:	<u>Water Quality Control Plan, Santa Ana River Basin</u>
Evaluation Guideline:	The maximum (Instantaneous) concentration for Malathion in freshwater is 100 ng/L.
Guideline Reference:	<u>Quality Criteria for Water. USEPA Office of Water and Hazardous Materials. Washington, D.C</u>
Spatial Representation:	Samples were collected at sites: TWF05 and SDMF05.
Temporal Representation:	Samples were collected from 2006 to 2009.
Environmental Conditions:	
QAPP Information:	Data were submitted with the County of Orange Stormwater Program Quality Assurance Management Plan (QAMP) dated January 2010. However, data were collected prior to the development of this QAMP, therefore the quality of these data are unknown.
QAPP Information Reference(s):	

DECISION ID
Coyote Creek

62166

Region 4

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (TMDL required list)
Last Listing Cycle's New Decision
Final Listing Decision:
Revision Status Revised
Sources: Source Unknown
Expected TMDL 2027
Completion Date:
Impairment from Pollutant
Pollutant or Pollution:

Regional Board Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

1 line of evidence is available in the administrative record to assess this pollutant.
3 of 26 samples exceeded the CRITERIA.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section 303(d) List. This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. 3 of 26 samples exceeded the CRITERIA and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Decision Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

State Board Review of Regional Board Conclusion and Recommendation:

State Board Decision Recommendation: After review of this Regional Board decision, SWRCB staff recommend the decision be approved by the State Board.

**Line of Evidence (LOE) for Decision ID 62166, Malathion
Coyote Creek**

Region 4

LOE ID:	83858
Pollutant:	Malathion
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Total Dissolved
Beneficial Use:	Warm Freshwater Habitat
Number of Samples:	26
Number of Exceedances:	3
Data and Information Type:	Fixed station physical/chemical (conventional plus toxic pollutants)
Data Used to Assess Water Quality:	Three of 26 samples exceed the maximum (Instantaneous) concentration for Malathion in freshwater of 100 ng/L.
Data Reference:	<u>Data for Various Waterbodies in Region 8 and Region 9, 2006-2009.</u>
SWAMP Data:	Non-SWAMP
Water Quality Objective/Criterion:	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
Objective/Criterion Reference:	<u>Water Quality Control Plan Los Angeles Region R4 Basin Plan</u>
Evaluation Guideline:	The maximum (Instantaneous) concentration for Malathion in freshwater is 100 ng/L.
Guideline Reference:	<u>Quality Criteria for Water. USEPA Office of Water and Hazardous Materials. Washington, D.C</u>
Spatial Representation:	Samples were collected at site: CCBA01
Temporal Representation:	Samples were collected from 2006 to 2009.
Environmental Conditions:	According to the County of Orange Stormwater Program Quality Assurance Management Plan (QAMP) dated January 2010, samples were collected during the dry season and storm events.
QAPP Information:	Data were submitted with the County of Orange Stormwater Program Quality Assurance Management Plan (QAMP) dated January 2010. However, data were collected prior to the

development of this QAMP, therefore the quality of these data are unknown.

QAPP Information Reference(s):

DECISION ID	64525	Region 4
Tapo Canyon		

Pollutant: Malathion
Final Listing Decision: List on 303(d) list (TMDL required list)
Last Listing Cycle's New Decision
Final Listing Decision:
Revision Status Revised
Sources: Source Unknown
Expected TMDL 2027
Completion Date:
Impairment from Pollutant
Pollutant or Pollution:

Regional Board Conclusion: This pollutant is being considered for placement on the CWA section 303(d) List under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant.

2 of 7 samples exceeded the CRITERIA.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the CWA section 303(d) List. This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. 2 of 7 samples exceeded the CRITERIA and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Regional Board Decision Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

**State Board Review of
Regional Board
Conclusion and
Recommendation:**

State Board Decision Recommendation: After review of this Regional Board decision, SWRCB staff recommend the decision be approved by the State Board.

**Line of Evidence (LOE) for Decision ID 64525, Malathion
Tapo Canyon**

Region 4

LOE ID: 89211

Pollutant: Malathion

LOE Subgroup: Pollutant-Water

Matrix: Water

Fraction: Total

Beneficial Use: Warm Freshwater Habitat

Number of Samples: 7

Number of Exceedances: 2

Data and Information Type: PHYSICAL/CHEMICAL MONITORING

Data Used to Assess Water Quality: State Water Board staff assessed Agwaiver data for Tapo Canyon to determine beneficial use support and results are as follows: 2 of 7 samples exceed the criterion for Malathion.

Data Reference: Data for various Pollutants from the Ag Waiver Program, 2007-2009.

SWAMP Data: Non-SWAMP

Water Quality Objective/Criterion: No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.

Objective/Criterion Reference: Water Quality Control Plan Los Angeles Region R4 Basin Plan

Evaluation Guideline: UC Davis Aquatic Life Criteria: Aquatic life should not be affected unacceptably if the 4-day average concentration of Malathion does not exceed 0.028 ug/L.

Guideline Reference: Aquatic life water quality criteria derived via the UC Davis method: II. Pyrethroid insecticides. Reviews of Environmental Contamination and Toxicology 216:51-103.

Spatial Representation:	Data for this line of evidence for Tapo Canyon was collected at 1 monitoring site [S04T_TAPO background site upstream of agricultural operations - S04T_TAPO_BKGD]
Temporal Representation:	Data was collected over the time period 1/5/2008-8/4/2009.
Environmental Conditions:	Staff is not aware of any special conditions that might affect interpretation of the data.
QAPP Information:	Data quality is good. A QAPP and monitoring plan was submitted. Data was collected by the Ventura County Agricultural Irrigated Lands Group for Order No. R4- 2005-0080.)
QAPP Information Reference(s):	<u>Quality Assurance Project Plan from Ventura County Agricultural Irrigated Lands Group.</u>

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agricultural uses with this analytical method)—may differ significantly from the aggregate underreporting suggested by this DPR analysis.

- Reporting errors. As mentioned above, professional applicators may occasionally make reporting errors, e.g., by reporting diluted product volumes rather than actual product volumes. If dilutions are high, like they are for fipronil, errors by only a small number of individuals can significantly change statewide data sets, as they did in the case of fipronil. Several other study-list pesticides may also be subject to this error, which is a possible explanation for finding that cypermethrin and deltamethrin reported use consistently significantly exceeds reported sales. Recognizing the importance of accurate pesticide use reporting, the Pest Control Operators of California, which is the professional organization for structural pest control applicators, has made its members aware of this issue (Van Steenwyk 2007). This should improve reporting accuracy for structural pest control applications starting in 2007.
- Data handling errors. Prior to releasing its annual report, DPR has always completed a quality assurance review of the data, which should eliminate data entry errors that are likely to have a significant effect on the data from the water quality perspective. After an audit of the data management system (Wilhoit et al. 2001), DPR implemented improved error handling processes and has continued efforts to improve the system; DPR believes these improvements keep errors to less than 1-2% (Wilhoit 2002; Wilhoit 2005).

2.4 Quantitative Pesticide Use Estimates

Using data from DPR, it is possible to develop gross quantitative estimates of pesticide use in California. The estimates use pesticide sales data, reported pesticide use data, and a calculation of pesticide use that does not require reporting. Assuming all pesticides sold are used within a particular year, pesticide use that does not require reporting (“unreported pesticide use”) can be estimated to be approximately equal to the difference between statewide pesticide sales and statewide reported pesticide use. This difference should be approximately equal to over-the-counter sales (retail sales to non-professionals). In other words, this estimation method is based on the assumption that urban use of a pesticide by non-professionals is approximately equal to over-the-counter sales of that pesticide.

Mathematically, this approach to estimating urban pesticide use can be expressed as follows:

$$\begin{array}{rclcl}
 \text{Urban Use} & \approx & \text{Reported} & + & \text{Over-the-Counter} \\
 & & \text{Urban Use} & & \text{(OTC) Sales} \\
 \\
 \text{Statewide} & \approx & \text{Statewide} & - & \text{Statewide} \\
 \text{OTC Sales} & & \text{Sales} & & \text{Reported Use}
 \end{array}$$

The main assumption behind this urban pesticide use estimation method is that all unreported pesticide use occurs in urban areas. The primary exceptions to California’s pesticide use reporting requirements are home and garden use and most industrial, commercial, and institutional pesticide applications not made by professional

applicators.¹⁴ Because these activities occur primarily in urban areas—and essentially all agricultural use¹⁵ requires reporting—the assumption that essentially all unreported uses of the study-list pesticides are urban is reasonable.

Another important assumption is that all pesticides sold are used—and used in the year they are sold. Some pesticides are stored and used in years after the year of purchase. If the market is stable, the effect of storage may not be very important. In a steady state market, use of past purchases may offset current purchases stored for future use. However, when the market changes—as it has due to phase out of previously popular diazinon and chlorpyrifos, for example—the stored products may have different active ingredients than current purchases that are stored for future use. In times of market change, the assumption that all pesticides sold are used in a given year would tend to overstate use of the active ingredient and understate use of the formerly popular active ingredient. Since some pesticides that are sold are never used, this approach generally overestimates non-professional use to an unknown degree. The unused amount cannot be quantitatively estimated. It should be assumed that estimated over the counter sales are an upper bound on annual use quantities by non-professionals.

Generally, it is reasonable to assume that pesticide use correlates with pesticide sales. Market factors may, however, cause this to not be the case for individual active ingredients. In addition to incidental storage of over-the-counter purchase noted above, professionals may also store products for future use. For example, pesticides newly introduced into the market may be sold in one calendar year, but not applied until the next year. When allowable pesticide uses are changed, sometimes users (both professional and non-professional) stockpile pesticides with the “old” label, which are generally allowed to be applied for the previously allowable use until stocks with labels allowing this use are exhausted.

Uncertainty

Errors in source data. Estimates of unreported urban use made in this manner combine uncertainties in the use reporting and sales data described above. The effect of errors in the source data is variable, depending on the pesticide. For example, there are two pesticides for which reported use has exceeded reported sales for at least five years (see below). If a pesticide has agricultural uses, any underreporting of those uses would cause unreported urban use to be overestimated. Agricultural underreporting has the most potential to affect unreported urban use estimates for study-list pesticides with significant agricultural use (carbaryl, chlorpyrifos, diazinon, malathion, cyfluthrin, esfenvalerate, and lambda-cyhalothrin).

Since the primary identified errors in pesticide sales and reported use data are systematic, they affect quantitative estimates more than they affect trends. These uncertainties must be kept in mind while reviewing this section, as errors for individual pesticides are unknown and may differ significantly from these average estimates.

In light of the uncertainties detailed above, this report focuses on general trends and conclusions that can be supported by the available data. To reflect the uncertainties in the quantitative estimates in this section, this report utilizes significant figures when presenting estimates. Sales data and use data from DPR and estimates based on calculations are rounded to provide the appropriate number of significant figures.

¹⁴ Pesticides incorporated into consumer products (e.g., treated wood, pet collars, insecticidal clothing) are often unreported, or reported as applied at the product manufacturing site rather than at the site where the products are used. Use of biocides to treat drinking water and wastewater are also usually not reported.

¹⁵ Except livestock treatment.

STUDY_CD	COUNTY	SITE_CODE
263	Santa Cruz	44_34
263	Monterey	27_89
263	Santa Barbara	42_50
263	Monterey	27_9
583	Yolo	57_20
263	Santa Cruz	44_15
263	Santa Barbara	42_50
263	Santa Cruz	44_33
263	Monterey	27_143
263	Santa Barbara	42_55
263	Santa Barbara	42_75
263	Santa Barbara	42_75
293	San Luis Obispo	40_13
263	Monterey	27_90
293	Monterey	27_57
263	Santa Barbara	42_75
293	Monterey	27_104
567	Ventura	56_196
479	San Diego	37_328
567	Ventura	56_114
263	Santa Barbara	42_76
263	Santa Barbara	42_75
263	Santa Barbara	42_76
263	Santa Barbara	42_55
263	Santa Barbara	42_76
479	San Diego	37_329
586	Yolo	57_2
479	San Diego	37_329
293	Santa Barbara	42_50
263	Santa Barbara	42_50
479	San Diego	37_330
567	Ventura	56_191
263	Santa Barbara	42_50
567	Ventura	56_114
479	San Diego	37_269
263	Monterey	27_89
263	Santa Barbara	42_76
479	San Diego	37_269
479	San Diego	37_332
479	San Diego	37_333
293	Santa Barbara	42_50
293	Monterey	27_80
479	San Diego	37_328
293	Monterey	27_50

586 Yolo	57_30
479 San Diego	37_338
583 Yolo	57_30
567 Ventura	56_196
567 Ventura	56_197
458 Sutter	51_39
583 Yolo	57_2
263 Santa Cruz	44_30
263 Santa Barbara	42_76
479 San Diego	37_342
567 Ventura	56_200
293 San Luis Obispo	40_13
293 Santa Barbara	42_64
263 Santa Barbara	42_76
110 Yolo	57_30
263 Monterey	27_90
263 Santa Barbara	42_76
263 Santa Barbara	42_75
110 Sutter	51_36
587 Sutter	51_36
293 Santa Cruz	44_31
110 Yolo	57_30
263 Santa Cruz	44_34
567 Ventura	56_199
263 Santa Barbara	42_75
263 Santa Barbara	42_50
479 San Diego	37_331
567 Ventura	56_191
459 Yolo	57_2
293 Monterey	27_82
567 Ventura	56_200
479 San Diego	37_331
479 San Diego	37_342
567 Ventura	56_201
263 San Joaquin	39_17
293 Monterey	27_12
479 San Diego	37_328
480 San Diego	37_345
567 Ventura	56_199
479 San Diego	37_338
263 Santa Barbara	42_75
263 Monterey	27_14
263 Santa Barbara	42_50
567 Ventura	56_114
567 Ventura	56_198

479 San Diego	37_337
479 San Diego	37_329
567 Ventura	56_195
567 Ventura	56_190
479 San Diego	37_269
583 Sutter	51_36
263 Monterey	27_90
263 Solano	48_52
263 Santa Barbara	42_75
479 San Diego	37_333
479 San Diego	37_340
567 Ventura	56_190
293 Santa Cruz	44_30
585 Sutter	51_36
263 Riverside	33_2
479 San Diego	37_332
263 Santa Barbara	42_75
263 Monterey	27_90
110 Tehama	52_24
110 Sutter	51_36
587 Sutter	51_36
567 Ventura	56_198
263 Santa Barbara	42_75
263 Monterey	27_143
479 San Diego	37_336
567 Ventura	56_194
263 Riverside	33_2
263 Santa Barbara	42_50
263 Alameda	01_107
263 Monterey	27_143
263 Monterey	27_12
263 Monterey	27_144
263 Monterey	27_138
263 Monterey	27_141
263 Monterey	27_142
263 Riverside	33_2
263 Riverside	33_2
263 Riverside	33_2
263 Sacramento	34_5
263 Sacramento	34_5
263 Sacramento	34_5
263 San Joaquin	39_17
263 San Joaquin	39_17
263 San Joaquin	39_17
263 San Joaquin	39_17

263 San Joaquin	39_17
263 San Joaquin	39_17
263 San Joaquin	39_17
263 San Joaquin	39_17
263 San Joaquin	39_17
263 San Luis Obispo	40_32
263 San Luis Obispo	40_48
263 San Luis Obispo	40_47
263 Santa Barbara	42_38
263 Santa Barbara	42_9
263 Santa Barbara	42_55
263 Santa Barbara	42_126
263 Santa Clara	43_59
263 Santa Clara	43_58
263 Santa Clara	43_60
263 Santa Clara	43_57
263 Santa Clara	43_29
263 Santa Clara	43_55
263 Santa Clara	43_53
263 Santa Cruz	44_46
263 Santa Cruz	44_47
263 Santa Cruz	44_30
263 Stanislaus	50_28
263 Stanislaus	50_28

SITE NAME

Watsonville Slough Nr Watsonville Ca
Monterey Drainage Ditch Nr Watsonville Ca
Orcutt Crk at W. Main
Blanco Drain at Cooper Rd, ca 0.2 mi. S of Nashua Rd, drains to Salinas R.
Rough and Ready Pumping Plant (RD 108); Regional Board Irr. Lands Mon. site code: 520RARPMP
Pajaro River at Thurwacher Bridge
Orcutt Crk at W. Main
Pajaro R Estuary Nr Watsonville Ca
Natividad C Nr Salinas Ca
Orcutt Solomon Creek at Black Road (312ORBxxx 2007 SWAMP)
Santa Maria R Estuary Nr Guadalupe Ca
Santa Maria R Estuary Nr Guadalupe Ca
Oso Flaco Crk at Oso Flaco Lake Rd
Pajaro R Estuary A Mouth Nr Watsonville Ca
Tembladero Sl. at HWY 183
Santa Maria R Estuary Nr Guadalupe Ca
Gabilan Creek @ Independence Rd and East Boranda Rd
MO-OXN
Buena Vista Creek TWAS 1
Calleguas Creek Below Camrosa WWTP, Site 6
Santa Maria R Estuary A Mouth Nr Guadalupe Ca
Santa Maria R Estuary Nr Guadalupe Ca
Santa Maria R Estuary A Mouth Nr Guadalupe Ca
Orcutt Solomon Creek at Black Road (312ORBxxx 2007 SWAMP)
Santa Maria R Estuary A Mouth Nr Guadalupe Ca
Loma Alta Creek TWAS 1
Colusa Basin Drain above Knights Landing
Loma Alta Creek TWAS 1
Orcutt Crk at W. Main
Orcutt Crk at W. Main
Los Penasquitos Creek TWAS 3
MO-FIL
Orcutt Crk at W. Main
Calleguas Creek Below Camrosa WWTP, Site 6
Penasquitos Creek @ Springbrook
Monterey Drainage Ditch Nr Watsonville Ca
Santa Maria R Estuary A Mouth Nr Guadalupe Ca
Penasquitos Creek @ Springbrook
Mission Bay TWAS 2
Otay River TWAS 1
Orcutt Crk at W. Main
Blanco Drain below Pump
Buena Vista Creek TWAS 1
Old Salinas R. at Monterey Dunes Way

Willow Slough Bypass at Poleline
San Dieguito River TWAS 1
Willow Slough Bypass at Poleline
MO-OXN
MO-SIM
Lower Snake R. at Nuestro Rd; Regional Board Irr. Lands Mon. site code: 515LSRANR
Colusa Basin Drain above Knights Landing
Pajaro River at Porter/Main (305PJPxxx 2006 SWAMP)
Santa Maria R Estuary A Mouth Nr Guadalupe Ca
San Marcos Creek TWAS 1a
MO-VEN
Oso Flaco Crk at Oso Flaco Lake Rd
Bradley Channel at Jones Street
Santa Maria R Estuary A Mouth Nr Guadalupe Ca
Willow Slough Bypass at Poleline
Pajaro R Estuary A Mouth Nr Watsonville Ca
Santa Maria R Estuary A Mouth Nr Guadalupe Ca
Santa Maria R Estuary Nr Guadalupe Ca
Gilsizer Slough; Regional Board Irr. Lands Mon. site code: GSAGWR and 520GSAGWR.
Gilsizer Slough; Regional Board Irr. Lands Mon. site code: GSAGWR and 520GSAGWR.
Watsonville Slough upstream Harkins Slough (305WSAxxx 2006 SWAMP)
Willow Slough Bypass at Poleline
Watsonville Slough Nr Watsonville Ca
MO-THO
Santa Maria R Estuary Nr Guadalupe Ca
Orcutt Crk at W. Main
Mission Bay TWAS 1
MO-FIL
Colusa Basin Drain above Knights Landing
Espinosa Slough upstream from Alisal Slough
MO-VEN
Mission Bay TWAS 1
San Marcos Creek TWAS 1a
ME-SCR
San Joaquin River near Vernalis
Rec Ditch at San Jon Rd
Buena Vista Creek TWAS 1
Imperial Beach_E1A, E1B_Tijuana River
MO-THO
San Dieguito River TWAS 1
Santa Maria R Estuary Nr Guadalupe Ca
Salinas River at Del Monte Rd
Orcutt Crk at W. Main
Calleguas Creek Below Camrosa WWTP, Site 6
MO-SPA

San Diego River TWAS 3
 Loma Alta Creek TWAS 1
 MO-OJA
 MO-CAM
 Penasquitos Creek @ Springbrook
 Gilsizer Slough; Regional Board Irr. Lands Mon. site code: GSAGWR and 520GSAGWR.
 Pajaro R Estuary A Mouth Nr Watsonville Ca
 Grizzly Bay at Dolphin nr. Suisun Slough. CEDEN: 207SNB0D7
 Santa Maria R Estuary Nr Guadalupe Ca
 Otay River TWAS 1
 Sweetwater River TWAS 1
 MO-CAM
 Pajaro River at Porter/Main (305JPxxx 2006 SWAMP)
 Gilsizer Slough; Regional Board Irr. Lands Mon. site code: GSAGWR and 520GSAGWR.
 Santa Ana R Bl Prado Dam California_USGS NAWQA site
 Mission Bay TWAS 2
 Santa Maria R Estuary Nr Guadalupe Ca
 Pajaro R Estuary A Mouth Nr Watsonville Ca
 Coyote Creek at Tyler Road; Regional Board Irr. Lands Mon. site code: 508CCKATR
 Gilsizer Slough; Regional Board Irr. Lands Mon. site code: GSAGWR and 520GSAGWR.
 Gilsizer Slough; Regional Board Irr. Lands Mon. site code: GSAGWR and 520GSAGWR.
 MO-SPA
 Santa Maria R Estuary Nr Guadalupe Ca
 Natividad C Nr Salinas Ca
 San Diego River TWAS 2
 MO-MPK
 Santa Ana R Bl Prado Dam California_USGS NAWQA site
 Orcutt Crk at W. Main
 Arroyo de la Laguna at Pleasanton
 Natividad C Nr Salinas Ca
 Rec Ditch at San Jon Rd
 Gabilan C Nr Salinas Ca
 Salinas R Nr Bradley Ca
 Alisal C A Fairview Ave Nr Salinas Ca
 Gabilan C Ab E Laurel Dr Nr Salinas Ca
 Santa Ana R Bl Prado Dam California_USGS NAWQA site
 Santa Ana R Bl Prado Dam California_USGS NAWQA site
 Santa Ana R Bl Prado Dam California_USGS NAWQA site
 Sacramento River at Freeport (USGS-11447650)
 Sacramento River at Freeport (USGS-11447650)
 Sacramento River at Freeport (USGS-11447650)
 San Joaquin River near Vernalis
 San Joaquin River near Vernalis
 San Joaquin River near Vernalis
 San Joaquin River near Vernalis

San Joaquin River near Vernalis
San Joaquin River near Vernalis
San Joaquin River near Vernalis
San Joaquin River near Vernalis
San Joaquin River near Vernalis
Chorro Creek upstream from Chorro Flats
Stenner C A Murray Ave A San Luis Obispo Ca
San Luis Obispo C A Los Osos Vly Rd Nr San Luis Ob
Santa Barbara Harbor random site 19 - Santa Barbara Harbor Region - SWAMP station code 315SBRB
Santa Ynez River at 13th Street - Santa Ynez River Region - SWAMP station code 314SYN001
Orcutt Solomon Creek at Black Road (312ORBxxx 2007 SWAMP)
Santa Ynez R A Solvang Ca
Los Gatos C A E Hamilton Ave Nr Campbell Ca
Saratoga C A Braemar Dr A Saratoga Ca
Guadalupe R A Willow Glen Way Nr San Jose Ca
Coyote C A Coyote Rd Nr San Jose Ca
Guadalupe River-GR
Llagas C A San Martin Ave A San Martin Ca
Uvas C A Miller Ave A Gilroy Ca
Corralitos C A Freedom Ca
Unnamed Trib A Paulsen Rd Nr Freedom Ca
Pajaro River at Porter/Main (305PJPxxx 2006 SWAMP)
Orestimba Creek at River Road (trib. to SJR)
Orestimba Creek at River Road (trib. to SJR)

CHEMICAL	CONCENTRATION (ppb)	LOQ (ppb)	MDL (ppb)	SAMPLE DATE	LAT_NAD83
malathion	5.46	0.0037	0.0037	10/14/2009	36.8668
malathion	2.02	0.0037	0.0037	10/14/2009	36.8665
malathion	1.31	0.0037	0.0037	7/1/2008	34.95757
malathion	1.06	0.0037	0.0037	10/14/2009	36.69876
malathion	0.5252	0.006	0.003	3/17/2010	38.86209
malathion	0.51	0.0037	0.0037	10/14/2009	36.88006
malathion	0.401	0.0037	0.0037	2/7/2009	34.95757
malathion	0.357	0.0037	0.0037	10/14/2009	36.86111
malathion	0.255	0.0054	-999	4/5/2017	36.6987
malathion	0.235	0.0054	-999	3/21/2017	34.88386
malathion	0.232	0.0037	0.0037	2/7/2009	34.96167
malathion	0.223	0.0037	0.0037	7/1/2008	34.96167
malathion	0.218	0.006	0.003	3/26/2013	35.01637
malathion	0.213	0.0037	0.0037	10/14/2009	36.85
malathion	0.1808	0.006	0.003	2/28/2014	36.75173
malathion	0.168	0.0037	0.0037	5/28/2008	34.96167
malathion	0.1638	0.006	0.003	2/27/2014	36.69223
malathion	0.16	0.01	0.0076	1/5/2016	34.23614
malathion	0.14	0.01	0.0076	11/1/2014	33.1809
malathion	0.14	0.01	0.0076	1/6/2016	34.17978
malathion	0.12	0.0037	0.0037	10/15/2009	34.96972
malathion	0.118	0.0037	0.0037	10/15/2009	34.96167
malathion	0.11	0.0037	0.0037	7/1/2008	34.96972
malathion	0.101	0.0054	-999	4/18/2017	34.88386
malathion	0.101	0.0037	0.0037	4/28/2008	34.96972
malathion	0.1	0.01	0.0076	10/11/2012	33.1883
malathion	0.0967	0.006	0.003	3/20/2013	38.8125
malathion	0.095	0.01	0.0076	11/1/2014	33.1883
malathion	0.091	0.006	0.003	3/26/2013	34.95757
malathion	0.088	0.0037	0.0037	10/15/2009	34.95757
malathion	0.087	0.01	0.0076	11/1/2014	32.9464
malathion	0.085	0.01	0.0076	2/1/2016	34.40459
malathion	0.084	0.0037	0.0037	1/5/2008	34.95757
malathion	0.084	0.01	0.0076	2/6/2010	34.17978
malathion	0.081	0.01	0.0076	2/20/2013	32.9426
malathion	0.077	0.0037	0.0037	2/16/2009	36.8665
malathion	0.0756	0.0037	0.0037	4/1/2008	34.96972
malathion	0.069	0.01	0.0076	10/11/2012	32.9426
malathion	0.068	0.01	0.0076	2/3/2014	32.798
malathion	0.066	0.01	0.0076	10/29/2013	32.5904
malathion	0.0645	0.006	0.003	9/17/2013	34.95757
malathion	0.0637	0.006	0.003	2/28/2014	36.70852
malathion	0.061	0.01	0.0076	10/11/2012	33.1809
malathion	0.0594	0.006	0.003	2/28/2014	36.77157

malathion	0.0583	0.006	0.003	3/20/2013	38.59015
malathion	0.058	0.01	0.0076	11/1/2014	33.0435
malathion	0.0553	0.006	0.003	3/16/2010	38.59015
malathion	0.055	0.01	0.0076	2/1/2016	34.23614
malathion	0.054	0.01	0.0076	1/6/2016	34.27183
malathion	0.0528	0.00606	0.00303	8/18/2010	39.1852
malathion	0.051	0.006	0.003	3/17/2010	38.8125
malathion	0.0509	0.0054	-999	3/22/2017	36.9044
malathion	0.0506	0.0037	0.0037	10/29/2009	34.96972
malathion	0.05	0.01	0.0076	11/1/2014	33.1305
malathion	0.05	0.01	0.0076	1/5/2016	34.24329
malathion	0.0497	0.006	0.003	9/17/2013	35.01637
malathion	0.0495	0.006	0.003	9/19/2013	34.94544
malathion	0.0476	0.0037	0.0037	2/7/2009	34.96972
malathion	0.0475	0.006		4/21/2008	38.59015
malathion	0.0432	0.0037	0.0037	2/17/2009	36.85
malathion	0.0427	0.0037	0.0037	10/21/2009	34.96972
malathion	0.0402	0.0037	0.0037	10/29/2009	34.96167
malathion	0.0398	0.006		2/18/2009	39.009
malathion	0.0398	0.006	0.003	2/18/2009	39.009
malathion	0.0396	0.006	0.003	2/28/2014	36.89051
malathion	0.0373	0.006		3/19/2009	38.59015
malathion	0.036	0.0037	0.0037	2/16/2009	36.8668
malathion	0.034	0.01	0.0076	1/6/2016	34.21366
malathion	0.0324	0.0037	0.0037	4/1/2008	34.96167
malathion	0.0323	0.0037	0.0037	10/29/2009	34.95757
malathion	0.032	0.01	0.0076	2/3/2014	32.8168
malathion	0.032	0.01	0.0076	1/5/2016	34.40459
malathion	0.0312	0.006	0.003	8/17/2011	38.8125
malathion	0.0302	0.006	0.003	2/28/2014	36.73684
malathion	0.029	0.01	0.0076	2/1/2016	34.24329
malathion	0.027	0.01	0.0076	10/10/2013	32.8168
malathion	0.026	0.01	0.0076	10/11/2012	33.1305
malathion	0.026	0.01	0.0076	2/22/2010	34.29917
malathion	0.0255	0.006	-999	6/11/2013	37.67611
malathion	0.025	0.006	0.003	2/28/2014	36.70501
malathion	0.025	0.01	0.0076	3/1/2015	33.1809
malathion	0.025	0.01	0.0076	11/1/2014	32.57292
malathion	0.025	0.01	0.0076	2/1/2016	34.21366
malathion	0.023	0.01	0.0076	10/12/2012	33.0435
malathion	0.022	0.0037	0.0037	10/9/2008	34.96167
malathion	0.0212	0.0037	0.0037	10/14/2009	36.73192
malathion	0.0208	0.0037	0.0037	10/22/2009	34.95757
malathion	0.02	0.01	0.0076	2/1/2016	34.17978
malathion	0.02	0.01	0.0076	1/5/2016	34.34861

malathion	0.018	0.01	0.0076	3/1/2014	32.8565
malathion	0.018	0.01	0.0076	3/1/2015	33.1883
malathion	0.018	0.01	0.0076	1/5/2016	34.44479
malathion	0.018	0.01	0.0076	1/5/2016	34.21944
malathion	0.017	0.01	0.0076	11/1/2014	32.9426
malathion	0.017	0.006	0.003	1/21/2010	39.009
malathion	0.0168	0.0037	0.0037	5/29/2008	36.85
malathion	0.0161	0.0037	0.0037	4/5/2011	38.11708
malathion	0.016	0.0037	0.0037	4/28/2008	34.96167
malathion	0.015	0.01	0.0076	2/3/2014	32.5904
malathion	0.015	0.01	0.0076	10/10/2013	32.7328
malathion	0.015	0.01	0.0076	2/1/2016	34.21944
malathion	0.0139	0.006	0.003	2/27/2014	36.9044
malathion	0.0135	0.006	0.003	1/24/2012	39.009
malathion	0.013	0.006	-999	5/7/2013	33.88335
malathion	0.013	0.01	0.0076	10/10/2013	32.798
malathion	0.013	0.0037	0.0037	9/11/2008	34.96167
malathion	0.0124	0.0037	0.0037	4/2/2008	36.85
malathion	0.0124	0.006		4/23/2008	40.0925
malathion	0.0123	0.006		1/27/2009	39.009
malathion	0.0123	0.006	0.003	1/27/2009	39.009
malathion	0.012	0.01	0.0076	2/1/2016	34.34861
malathion	0.0117	0.0037	0.0037	10/21/2009	34.96167
malathion	0.0114	0.0054	-999	3/29/2017	36.6987
malathion	0.011	0.01	0.0076	3/1/2014	32.8392
malathion	0.011	0.01	0.0076	2/1/2016	34.27897
malathion	0.0103	0.006	-999	2/24/2015	33.88335
malathion	0.0102	0.0037	0.0037	4/28/2008	34.95757
malathion	0.01	0.0054	-999	3/14/2017	37.62672
malathion	0.01	0.0054	-999	3/15/2017	36.6987
malathion	0.01	0.0054	-999	3/13/2017	36.70501
malathion	0.01	0.0054	-999	3/15/2017	36.75579
malathion	0.01	0.0054	-999	3/14/2017	35.93024
malathion	0.01	0.0054	-999	3/13/2017	36.66751
malathion	0.01	0.0054	-999	3/15/2017	36.6939
malathion	0.01	0.006	-999	2/4/2014	33.88335
malathion	0.01	0.0054	-999	3/9/2016	33.88335
malathion	0.01	0.006	-999	12/19/2013	33.88335
malathion	0.01	0.006	-999	10/16/2014	38.45602
malathion	0.01	0.006	-999	7/24/2014	38.45602
malathion	0.01	0.006	-999	5/13/2014	38.45602
malathion	0.01	0.006	-999	2/12/2014	37.67611
malathion	0.01	0.006	-999	10/15/2014	37.67611
malathion	0.01	0.006	-999	4/6/2015	37.67611
malathion	0.01	0.006	-999	5/15/2014	37.67611

malathion	0.01	0.006	-999	6/11/2015	37.67611
malathion	0.01	0.006	-999	5/15/2015	37.67611
malathion	0.01	0.006	-999	7/23/2014	37.67611
malathion	0.01	0.006	-999	8/14/2015	37.67611
malathion	0.01	0.006	-999	12/17/2013	37.67611
malathion	0.01	0.0054	-999	3/15/2017	35.35746
malathion	0.01	0.0054	-999	3/15/2017	35.2904
malathion	0.01	0.0054	-999	3/15/2017	35.24333
malathion	0.01	0.0054	-999	3/14/2017	34.4
malathion	0.01	0.0054	-999	3/14/2017	34.67
malathion	0.01	0.0054	-999	3/14/2017	34.88386
malathion	0.01	0.0054	-999	3/13/2017	34.58499
malathion	0.01	0.0054	-999	3/15/2017	37.2939
malathion	0.01	0.0054	-999	3/15/2017	37.2722
malathion	0.01	0.0054	-999	3/14/2017	37.30395
malathion	0.01	0.0054	-999	3/14/2017	37.26494
malathion	0.01	0.0054	-999	3/13/2017	37.37356
malathion	0.01	0.0054	-999	3/13/2017	37.08674
malathion	0.01	0.0054	-999	3/14/2017	36.99853
malathion	0.01	0.0054	-999	3/15/2017	36.9394
malathion	0.01	0.0054	-999	3/15/2017	36.955
malathion	0.01	0.0054	-999	3/15/2017	36.9044
malathion	0.01	0.0054	-999	3/7/2016	37.41361
malathion	0.01	0.006	-999	4/1/2013	37.41361

LONGI_NAD83 AGENCY

- 121.81656 U.S. Geological Survey Water Resources Discipline
- 121.80225 U.S. Geological Survey Water Resources Discipline
- 120.63149 U.S. Geological Survey Water Resources Discipline
- 121.73414 U.S. Geological Survey Water Resources Discipline
- 121.7927 Pacific Ecorisk
- 121.79204 U.S. Geological Survey Water Resources Discipline
- 120.63149 U.S. Geological Survey Water Resources Discipline
- 121.80028 U.S. Geological Survey Water Resources Discipline
- 121.61072 U.S. Geological Survey Water Resources Discipline
- 120.49406 U.S. Geological Survey Water Resources Discipline
- 120.64639 U.S. Geological Survey Water Resources Discipline
- 120.64639 U.S. Geological Survey Water Resources Discipline
- 120.58655 Tetra Tech, Inc.
- 121.80806 U.S. Geological Survey Water Resources Discipline
- 121.74171 Pacific Ecorisk
- 120.64639 U.S. Geological Survey Water Resources Discipline
- 121.62918 Pacific Ecorisk
- 119.18442 Ventura County Stormwater Quality Monitoring Program
- 117.327 Weston Solutions
- 119.04053 Ventura County Stormwater Quality Monitoring Program
- 120.64944 U.S. Geological Survey Water Resources Discipline
- 120.64639 U.S. Geological Survey Water Resources Discipline
- 120.64944 U.S. Geological Survey Water Resources Discipline
- 120.49406 U.S. Geological Survey Water Resources Discipline
- 120.64944 U.S. Geological Survey Water Resources Discipline
- 117.362 Weston Solutions
- 121.77306 Pacific Ecorisk
- 117.362 Weston Solutions
- 120.63149 Tetra Tech, Inc.
- 120.63149 U.S. Geological Survey Water Resources Discipline
- 117.205 Weston Solutions
- 118.93069 Ventura County Stormwater Quality Monitoring Program
- 120.63149 U.S. Geological Survey Water Resources Discipline
- 119.04053 Ventura County Stormwater Quality Monitoring Program
- 117.084 Weston Solutions
- 121.80225 U.S. Geological Survey Water Resources Discipline
- 120.64944 U.S. Geological Survey Water Resources Discipline
- 117.084 Weston Solutions
- 117.19 Weston Solutions
- 117.073 Weston Solutions
- 120.63149 Tetra Tech, Inc.
- 121.7489 Pacific Ecorisk
- 117.327 Weston Solutions
- 121.78867 Pacific Ecorisk

- 121.73058 Pacific Ecorisk
 - 117.076 Weston Solutions
- 121.73058 Pacific Ecorisk
- 119.18442 Ventura County Stormwater Quality Monitoring Program
- 118.78375 Ventura County Stormwater Quality Monitoring Program
 - 121.7035 Pacific Ecorisk
- 121.77306 Pacific Ecorisk
 - 121.7504 U.S. Geological Survey Water Resources Discipline
- 120.64944 U.S. Geological Survey Water Resources Discipline
 - 117.2 Weston Solutions
- 119.19468 Ventura County Stormwater Quality Monitoring Program
- 120.58655 Tetra Tech, Inc.
- 120.41679 Tetra Tech, Inc.
- 120.64944 U.S. Geological Survey Water Resources Discipline
- 121.73058 Sacramento Valley Water Quality Coalition (RWB5 Irrigated Lands Monitoring)
- 121.80806 U.S. Geological Survey Water Resources Discipline
- 120.64944 U.S. Geological Survey Water Resources Discipline
- 120.64639 U.S. Geological Survey Water Resources Discipline
 - 121.6716 Sacramento Valley Water Quality Coalition (RWB5 Irrigated Lands Monitoring)
 - 121.6716 Pacific Ecorisk
- 121.80071 Tetra Tech, Inc.
- 121.73058 Sacramento Valley Water Quality Coalition (RWB5 Irrigated Lands Monitoring)
- 121.81656 U.S. Geological Survey Water Resources Discipline
- 118.92118 Ventura County Stormwater Quality Monitoring Program
- 120.64639 U.S. Geological Survey Water Resources Discipline
- 120.63149 U.S. Geological Survey Water Resources Discipline
 - 117.223 Weston Solutions
- 118.93069 Ventura County Stormwater Quality Monitoring Program
- 121.77306 California Rice Commission (RWB5 Irrigated Lands Monitoring)
- 121.73386 Pacific Ecorisk
- 119.19468 Ventura County Stormwater Quality Monitoring Program
 - 117.223 Weston Solutions
 - 117.2 Weston Solutions
- 119.10799 Ventura County Stormwater Quality Monitoring Program
- 121.26528 USGS California Water Science Center
- 121.70408 Pacific Ecorisk
 - 117.327 Weston Solutions
- 117.12313 Weston Solutions
- 118.92118 Ventura County Stormwater Quality Monitoring Program
 - 117.076 Weston Solutions
- 120.64639 U.S. Geological Survey Water Resources Discipline
- 121.78088 U.S. Geological Survey Water Resources Discipline
- 120.63149 U.S. Geological Survey Water Resources Discipline
- 119.04053 Ventura County Stormwater Quality Monitoring Program
- 119.05551 Ventura County Stormwater Quality Monitoring Program

- 116.947 Weston Solutions
- 117.362 Weston Solutions
- 119.24123 Ventura County Stormwater Quality Monitoring Program
- 119.06613 Ventura County Stormwater Quality Monitoring Program
 - 117.084 Weston Solutions
- 121.6716 Pacific Ecorisk
- 121.80806 U.S. Geological Survey Water Resources Discipline
- 122.03972 USGS California Water Science Center
- 120.64639 U.S. Geological Survey Water Resources Discipline
 - 117.073 Weston Solutions
 - 116.94 Weston Solutions
- 119.06613 Ventura County Stormwater Quality Monitoring Program
 - 121.7504 Tetra Tech, Inc.
 - 121.6716 Pacific Ecorisk
- 117.64533 U.S. Geological Survey Water Resources Discipline
 - 117.19 Weston Solutions
- 120.64639 U.S. Geological Survey Water Resources Discipline
- 121.80806 U.S. Geological Survey Water Resources Discipline
 - 122.1588 Sacramento Valley Water Quality Coalition (RWB5 Irrigated Lands Monitoring)
 - 121.6716 Sacramento Valley Water Quality Coalition (RWB5 Irrigated Lands Monitoring)
 - 121.6716 Pacific Ecorisk
- 119.05551 Ventura County Stormwater Quality Monitoring Program
- 120.64639 U.S. Geological Survey Water Resources Discipline
- 121.61072 U.S. Geological Survey Water Resources Discipline
 - 117.024 Weston Solutions
- 118.90539 Ventura County Stormwater Quality Monitoring Program
- 117.64533 U.S. Geological Survey Water Resources Discipline
- 120.63149 U.S. Geological Survey Water Resources Discipline
- 121.88258 U.S. Geological Survey Water Resources Discipline
- 121.61072 U.S. Geological Survey Water Resources Discipline
- 121.70408 U.S. Geological Survey Water Resources Discipline
 - 121.6105 U.S. Geological Survey Water Resources Discipline
- 120.86879 U.S. Geological Survey Water Resources Discipline
- 121.62742 U.S. Geological Survey Water Resources Discipline
 - 121.627 U.S. Geological Survey Water Resources Discipline
- 117.64533 U.S. Geological Survey Water Resources Discipline
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- 117.64533 U.S. Geological Survey Water Resources Discipline
- 121.50134 U.S. Geological Survey Water Resources Discipline
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- 121.50134 U.S. Geological Survey Water Resources Discipline
- 121.26528 U.S. Geological Survey Water Resources Discipline
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-120.8121 U.S. Geological Survey Water Resources Discipline
-120.66632 U.S. Geological Survey Water Resources Discipline
-120.68111 U.S. Geological Survey Water Resources Discipline
-119.68 U.S. Geological Survey Water Resources Discipline
-120.55 U.S. Geological Survey Water Resources Discipline
-120.49406 U.S. Geological Survey Water Resources Discipline
-120.14459 U.S. Geological Survey Water Resources Discipline
-121.933 U.S. Geological Survey Water Resources Discipline
-122.016 U.S. Geological Survey Water Resources Discipline
-121.88225 U.S. Geological Survey Water Resources Discipline
-121.79466 U.S. Geological Survey Water Resources Discipline
-121.93283 U.S. Geological Survey Water Resources Discipline
-121.60521 U.S. Geological Survey Water Resources Discipline
-121.58496 U.S. Geological Survey Water Resources Discipline
-121.77051 U.S. Geological Survey Water Resources Discipline
-121.7453 U.S. Geological Survey Water Resources Discipline
-121.7504 U.S. Geological Survey Water Resources Discipline
-121.015 U.S. Geological Survey Water Resources Discipline
-121.015 USGS California Water Science Center

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July 2017
Malathion Product Label Summary
Compiled by County of Sacramento and

Table 1 shows malathion products that are registered for use by both US EPA and the California Department of Pesticide Regulation (CDPR), as of February 2017, that include uses on their labels that could be conducted by unlicensed residential users.

The table shows which products include outdoor uses on structures and/or on ornamental plants. Both of these application types could be conducted by residential users in urban settings who are not licensed and are not required to report their usage. Other uses for these products not summarized in this table that are potentially conducted by urban residential users include various food plants and spot treatments for mosquitoes in yards and on building surfaces.

Outdoor uses on structures includes applications to building surfaces and foundations. Because these application sites include impermeable surfaces, they are considered likely to release malathion into urban runoff.

Active ingredient concentrations of all of these products are 50% or more.

Table 1 Malathion Product Summary
Structural and Ornamental Uses, Product Concentrations
Registered in California

Product Registration #	Outdoor use on structures (flies and other nuisance pests)	Insect control in lawns	Outdoor use on ornamentals	Active ingredient concentration in container
46515-19-AA-9688	No		Yes	50%
46515-19-AA-8845	No		Yes	50%
67760-40-ZA	Yes*		Yes	57%
19713-217-AA	Yes*	Yes***	Yes	57%
5905-250-ZA	Yes*		Yes	81%
33955-394-ZB	Yes*		Yes	50%
10163-21-ZA	Yes*		Yes	79.5%
10163-21-ZB	Yes*		Yes	79.5%
34704-474-ZA	Yes*		Yes	81.8%
34704-452-ZA	Yes*		Yes	79.5%
239-739-ZN	Yes**		Yes	50%

* includes fly control on foundations and/or painted and unpainted surfaces.

** includes 2 ft strip for clover mites, and foundation/patio spray for ants and other nuisance arthropods

*** Spot control of Ant Mounds in Lawns, and "light spray in lawn"

There are a few other malathion products registered for use in California, as shown in Table 2 below. These products are either labeled only for agricultural uses, or are for applications that would be only be conducted by professionals. Examples of professional treatments include treatment of stored food products, and area-wide ULV mosquito treatment.

**Table 2 Malathion Products that do not include “residential” uses
Registered in California**

Product Registration #	Uses
4787-5-AA	Technical – for formulation into end use products for mosquito control
67760-35-AA	ULV ag use
67760-34-ZA	Government agency only ULV mosquito control
279-3539-AA	Government agency only ULV mosquito control (This is the new reg. no for 67760-34)
1015-69-AA	Post harvest application for grain commodities
67760-131-AA	Restricted Use Pesticide All uses for food crops



California Stormwater Quality Association[®]

Dedicated to the Advancement of Stormwater Quality Management, Science and Regulation

July 23, 2018

Ms. Tracy Perry
Office of Pesticide Programs
Regulatory Public Docket Center (28221T)
U. S. Environmental Protection Agency (EPA)

**SUBJECT: Malathion – National Marine Fisheries Service Biological Opinion
(EPA-HQ-OPP-2018-0141)**

Dear Ms. Perry,

On behalf of the California Stormwater Quality Association (CASQA¹), thank you for this opportunity to comment on the National Marine Fisheries Service's (NMFS's) Biological Opinion (BiOp) for the pesticide malathion. Although the BiOp also evaluates diazinon and chlorpyrifos, our comments focus on malathion, which is the only one of these three pesticides that continues to have meaningful urban use.

Municipalities are held responsible for impacts to receiving water that result from pesticide pollution from urban runoff via municipal storm drain systems. When pesticide-related water pollution occurs, municipalities can be subject to enforcement actions under the terms of their National Pollutant Discharge Elimination System (NPDES) permits. Municipalities also face negative publicity and the increasing threat of litigation under the citizen suit provisions of the Clean Water Act (CWA).² Pesticide pollution of urban surface waters thereby creates a multi-million-dollar regulatory burden for our municipal agency members.

CASQA is pleased that EPA and NMFS are cooperating to address endangered species during pesticide registration review. As managers tasked with protecting the surface waters receiving municipal stormwater discharges, as well as the species in these waters, we appreciate the effort that has been put forth to draft this BiOp. The NPDES permits issued to CASQA's member agencies include requirements to protect all the beneficial uses of waters receiving municipal stormwater discharges, including protecting rare, threatened, or endangered species. Through these CWA permits, water quality regulators make municipalities responsible for meeting Endangered Species Act (ESA) requirements.³

Since our member agencies do not have authority to control urban pesticide use, we seek to ensure that the pesticides ESA Consultation process will lead to mitigations that will protect endangered species and their critical habitats. Because our responsibilities for habitat protection extend beyond endangered species to include all other beneficial uses in our urban watersheds, we also seek to ensure that OPP's pesticide Registration Review process

¹ CASQA is comprised of stormwater quality management organizations and individuals, including cities, counties, special districts, industries, and consulting firms throughout California. Our membership provides stormwater quality management services to more than 23 million people in California.

² c.f., *Natural Resources Defense Council, Inc. v. County of Los Angeles* (Filed July 13, 2011), Case No. 1056017; *Coalition for a Sustainable Delta, et al., v. City of Stockton and County of San Joaquin* (Filed Feb. 18, 2009), Case No. 2:09-cv-00466-JAM-KJN

³ For example, see San Francisco Bay Municipal Regional Stormwater Permit, Order No. R2-2015-0049 (November 19, 2015), Attachment A, Page A-18, Paragraph B.8.

will lead to mitigations that will protect all beneficial uses of surface waters (including protection of non-endangered species). It is through that lens that we review the BiOp.

We appreciate that EPA has provided an opportunity to review and share information that may be used to improve the pesticide consultation process for malathion and other pesticides. As requested in the Federal Register notice, our comments address three topics within the context of our two decades of experience addressing sources, transport, and management of pesticides in urban runoff:

1. Scientific approaches and data sources. Our comments provide information on Clean Water Act malathion 303(d) listings and identify the need to consider impervious surfaces and storm drainage systems when evaluating and managing pesticides runoff from urban areas.
2. Evaluation of the proposed Reasonable and Prudent Alternatives (RPAs) in the context of urban (developed) areas. We highlight RPA approaches that are impractical or ineffective in the urban context and suggest alternatives.
3. Non-agricultural pesticide usage data. We share our analysis of California pesticide sales data, use data, and water quality monitoring data that suggests that most malathion in urban runoff likely stems from products sold at retail to non-professional users.

On the basis of our analysis of available data, we suggest that EPA, the Services (U.S. Fish and Wildlife Service (FWS) and NMFS), and registrants strongly consider removing all malathion products from retail shelves. This change would not prevent urban malathion use – but it would ensure that such use is handled by licensed professional applicators.

Occurrence of malathion Clean Water Act 303(d) listings in urban water bodies is consistent with BiOp finding of adverse modification of critical habitat

Malathion is of interest to CASQA because it has been found in California in many urban watersheds at concentrations above EPA's malathion water quality criterion, resulting in multiple listings in the most recent EPA-approved California Clean Water Act 303(d) list of impaired water bodies.⁴ Table 1 provides a summary of California water bodies, by county, that are listed as impaired by malathion and receive urban runoff discharges. Except for the water bodies in the Central Coast Region, these water bodies are not receiving inputs from agricultural areas, so the impairments are almost certainly due to urban uses.⁵

The process to designate California surface waters as being impaired by malathion involves a comparison of all available high-quality monitoring data to the EPA national recommended water quality criteria for malathion. This national value, 0.1 ug/L (criterion continuous concentration) stems from malathion's toxicity to aquatic arthropods. This value is greater than EPA OPP's aquatic life benchmarks for aquatic invertebrates (acute - 0.049 ug/L; chronic – 0.06 ug/L). Consequently, these Clean Water Act 303(d) listings are consistent with and support the BiOp's finding that "malathion is likely to adversely modify designated critical habitat" for the endangered salmonid populations that occur in the California urban water bodies on the 303(d) list.

Data from the California Department of Pesticide Regulation's (CDPR) Surface Water Data Base (SURF) indicate that malathion concentrations in surface waters receiving urban runoff have continued to periodically exceed water quality objectives in the last decade, despite implementation of mitigation measures established in the 2009 malathion reregistration decision. SURF data for this period also shows that urban stormwater discharges contain malathion at concentrations that indicate that additional mitigation measures for urban uses should be adopted to

⁴ https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml.

⁵ The fact sheets developed by the California Regional Water Quality Control Boards in support of these listings are included as Attachment 1.

protect downstream surface waters. See Attachment 2 for a summary of SURF data for malathion concentrations in urban areas.

Table 1. Federal Clean Water Act malathion 303(d) listings for water bodies that receive urban runoff (2014-2016 California Integrated Report)

California Water Board Region	Listings	Number of Receiving Urban Runoff Discharges	Water Body Name	County
Central Coast Region (Region 3)	15	9	Pajaro River Estuary Salinas Reclamation Canal Tembladero Slough	Monterey
			Santa Maria Estuary	San Luis Obispo
			Main Street Channel Orcutt Creek Bradley Channel Santa Maria River	Santa Barbara
			Watsonville Slough	Santa Cruz
Central Valley Region (Region 5)	4	1	Arcade Creek	Sacramento
Santa Ana Region (Region 8)	3	3	Upper Newport Bay Peters Canyon Channel San Diego Creek Reach 1	Orange
San Diego Region (Region 9)	9	9	Aliso Creek Arroyo Trabuco Creek Prima Deshecha Creek Salt Creek Segunda Deschecha Creek	Orange
			Agua Hedionda Creek Chollas Creek Escondido Creek Tijuana River	San Diego

Source: California State Water Resources Control board 303(d) list

https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml

Note: Proposed updates anticipated in early 2019 for San Francisco Bay (Region 2), Los Angeles (Region 4). Updates for North Coast (Region 1), Lahontan (Region 6) and Colorado River (Region 7) will be done in 1-2 years.

Scientific methods do not fully recognize that urban landscapes convey pollutants efficiently to receiving waters

A key concern with the BiOp is that it does not fully include consideration of realistic urban drainage characteristics, and how these characteristics are likely to affect malathion transport to receiving waters. Such considerations should inform the selection of reasonable and prudent alternatives (RPAs) that are identified in the BiOp. Please refer to the BiOp's conceptual model on page 3-8 which omits impervious surfaces and storm drain systems. Although some of the modeling in the previously published EPA Biological Evaluation (BE) includes impervious surfaces, shortcomings

in the modeling approach urban uses were not modeled in a manner that leads to practical and effective RPAs.⁶ We highlight the importance of impervious surfaces here, as this provides background for our evaluation of the RPAs.

As experts in urban runoff management with a focus on reducing the discharge of pollutants to receiving waters, CASQA and its members are well aware of the great efficiency with which pollutants are conveyed by storm drain systems from the urban landscape to receiving waters. This characteristic is one of the primary reasons that pollutant discharges in urban runoff are so difficult to control, so it is critical that it be considered when devising effective pollutant mitigation measures.

Urban landscapes include both a high level of impervious surfaces (e.g., roofs, sidewalks, driveways, streets, and parking lots), and engineered storm drain infrastructure. By design, these features work together to rapidly drain water away from urban structures and land and convey it to receiving waters. This design also results in highly efficient transport of pollutants from urban areas to receiving waters, especially in cases where pollutants have been deposited or applied to impervious surfaces (such as driveways) that are hydrologically connected to storm drain systems.⁷ The importance of considering this phenomenon in the selection of mitigation measures for urban use pesticides has been confirmed by modeling conducted by CDPR for the insecticides bifenthrin and fipronil,^{8,9} which commonly are used for controlling nuisance insects around structures in urban areas. The model used by CDPR was developed by US EPA and could be used to evaluate malathion mitigation measures in urban areas.

The vast majority of urban drainage systems provide no treatment for pollutant removal, so that little or no attenuation of pollutant mass occurs prior to discharge of receiving waters, even in cases where the original point of entry to the drainage system is far from the receiving water. Even newer drainage systems installed since the 1990s which are more likely to include treatment measures such as low impact development (LID) features and detention basins, are unlikely to provide the level of treatment necessary to effectively mitigate insecticides, such as malathion, since these chemicals are toxic to aquatic organisms at concentrations below one part per billion.¹⁰ This is further complicated by the fact that the physical and chemical characteristics (upon which treatment systems work) vary greatly between the chemical classes of common urban use insecticides.

Urban malathion usage

How and where a pesticide is used are also important factors for establishing effective mitigation. In the BiOp, although Table 6 of Chapter 4 identifies several uses for outdoor applications,¹¹ it does not reflect an understanding of the fact that a number of registered products are concentrates, and that they are available to unlicensed applicators. Further, these products are labeled for application to sites such as ornamental plants, vegetables, and nuisance pests, all of which are common in urban areas. CASQA reviewed the labels of all malathion products registered in California and confirmed that eleven products are labeled in a way that allows for application (exclusive of area wide mosquito control), by professionals or residents to sites outside the home including use for both landscaping and structural pest control. Nine of these eleven products allow application to impermeable surfaces

⁶ Please see our June 6, 2016 comments on the BE for details. These comments are in the only Federal Docket system at this link: <https://www.regulations.gov/document?D=EPA-HQ-OPP-2009-0317-0044>

⁷ Yuzhou Luo 1,*; Brant C. Jorgenson 2; Dang Quoc Thuyet 3; Thomas M. Young 4,*; Frank Spurlock 1; Kean S. Goh. Insecticide washoff from concrete surfaces: characterization and prediction

⁸ CDPR, 2017. Modeling bifenthrin outdoor uses in residential areas of California

⁹ CDPR, 2016. Fipronil Monitoring and Model Scenarios

¹⁰ See EPA OPP Aquatic Life Benchmarks for Pesticides <https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-and-ecological-risk>

¹¹ Use sites listed in BiOp: Outdoor insects; Outdoor residential (mosquitoes, other nuisance insects); outdoor treatment, general (flies, mosquitoes, etc.).

such as foundations, and painted and non-painted surfaces.¹² Surveys of use patterns by professionals and homeowners indicate that in California, the most common applications of insecticides on the outside of homes are for control of ants, and most of these applications are made to impervious surfaces around the perimeters of homes.^{13,14,15} Information from the surveys indicate that between only 43% and 62% of residential users claim to actually measure the amount of pesticide that they use. Notably, all of the products available for homeowners are concentrates, ranging from 50% to 81.8% active ingredient, which specify levels of dilution (requiring measurement) prior to application.

CASQA analyzed CDPR statewide sales data¹⁶ and pesticide use reporting (PUR) data¹⁷ to provide information on which segment of the public may be applying malathion in urban areas. As detailed in Attachment 3, publicly available CDPR data sources provide a simple means of estimating urban non-professional ("non-reported") pesticide use and urban use by licensed professionals ("reported use"). State-licensed applicators are required to report all pesticide application quantities to CDPR via the PUR system. As seen in the Table 2 PUR data summary for counties with urban malathion 303(d) listings (from Table 1), in the counties with 303(d) listings for malathion, the amount of malathion applied by state-licensed applicators for structural pest control and landscape maintenance (both assumed to be primarily urban due to their linkage to CDPR's urban reporting form), is small. The largest amounts reported in this period are only about 2,000 pounds/year in each of Sacramento County and Orange County, with populations of approximately 1.5 million and 3.1 million, respectively.

Table 2. Pesticide Use Report (PUR) data from counties with urban 303(d) listings. (pounds of active ingredient applied)

County		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Monterey	Landscape	123	78	38	9	6	1	6	17	10	3
	Structural	4		0				0	10	17	
Orange	Landscape	87	181	67	281	211	127	98	147	313	1043
	Structural	2168	1790	1921	1131	923	869	602	378	30	
Sacramento	Landscape	4	1				0		0		
	Structural	1915	1698	1248	1084	780	995	607	295	43	2
San Diego	Landscape	75	59	84	48	19	52	34	26	18	57
	Structural	298	322	235	162	78	175	75	14		
San Luis Obispo	Landscape	46	5	8	10	27	15	3	2	5	5
	Structural			1		5				0	4
Santa Barbara	Landscape	15	30	16	18	8	3	3	7	10	8
	Structural	28	1	0							
Santa Cruz	Landscape		0	0	1	0		0	1	0	
	Structural	0	1	3	1			0	2	2	

Source: California Department of Pesticide Regulation Pesticide Use Reporting Data,
<https://www.cdpr.ca.gov/docs/pur/purmain.htm>

¹² See attachment 4 which provides a summary of the products that are labeled for outdoor urban applications.

¹³ CDPR. 2015. Survey of Pesticide Use by Homeowners in Two California Residential Neighborhoods

¹⁴ CDPR. 2001. Prepared by Wilen, C., UCIPM. Survey of Residential Pesticide Use and Sales in the San Diego Creek Watershed of Orange County, California

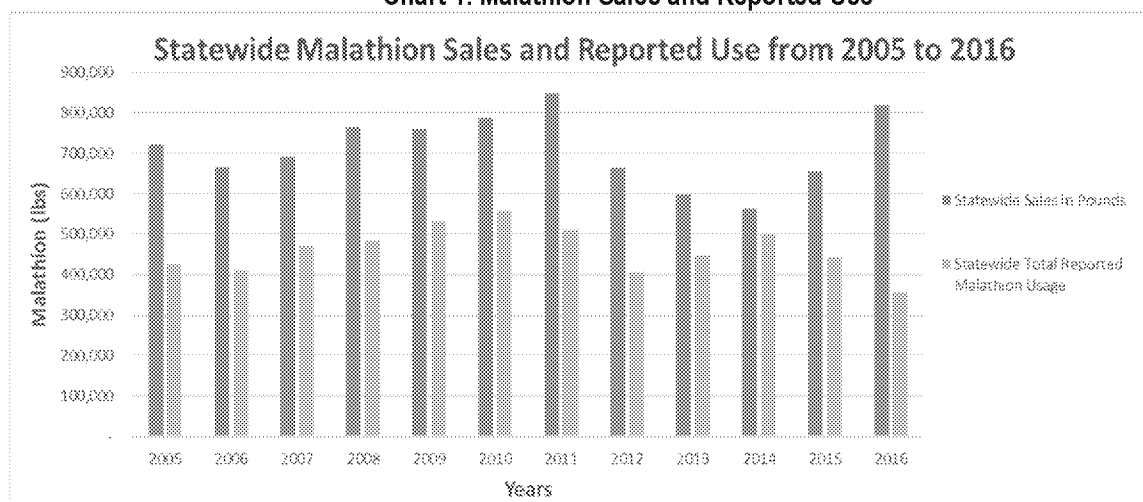
¹⁵ CDPR. 2001. Prepared by Flint, M.L., UCIPM. Residential Pesticide Use in California: a report of surveys taken in the Sacramento (Arcade Creek), Stockton (Five-Mile Slough) and San Francisco Bay Areas with Comparisons to the San Diego Creek Watershed of Orange County, California.

¹⁶ <https://www.cdpr.ca.gov/docs/mill/nopdsold.htm>

¹⁷ <https://www.cdpr.ca.gov/docs/pur/purmain.htm>

Chart 1 compares yearly CDPR sales data against PUR data. This information is used to provide a rough estimate of the upper bound of yearly unreported uses (by subtracting reported use from total sales), as shown in Chart 2. Chart 2 also compares the estimated unreported application amounts to the sum of reported landscape maintenance and structural pest control applications. Statewide, the estimate of unreported uses in all years greatly exceeds the reported landscape and structural applications. A detailed description of this estimation method, as well as its assumptions and uncertainties, is provided in Attachment 3.

Chart 1. Malathion Sales and Reported Use

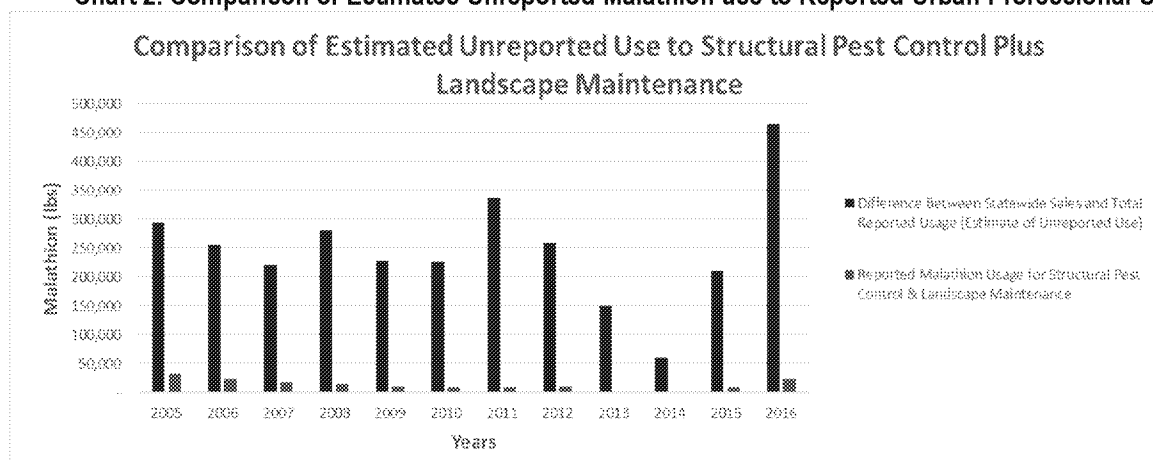


Source: California Department of Pesticide Regulation

sales data: <https://www.cdpr.ca.gov/docs/mill/nopsold.htm> pesticide use report data:

<https://www.cdpr.ca.gov/docs/pur/purmain.htm>

Chart 2. Comparison of Estimates Unreported Malathion use to Reported Urban Professional Use



Source: California Department of Pesticide Regulation pesticide use report data, <https://www.cdpr.ca.gov/docs/pur/purmain.htm>

Because CDPR has product-specific sales data not available to the public, it may be able to calculate a more refined estimate of unreported use that focuses on malathion products whose labels support urban uses by unlicensed persons.

Mosquito control is one of the uses discussed in the BiOp which can be conducted on a large scale in either urban areas or in rural areas. Applications of malathion for area-wide mosquito control are conducted only by public agencies (most often mosquito and vector control districts) and must be reported through the Pesticide Use Report

(PUR) system to the California Department of Pesticide Regulation (CDPR). Table 3 shows a breakdown, by county, of CDPR's PUR data of all public health applications of malathion (which is the category that includes area-wide mosquito control) for the period 2005-2014. None of the counties that have water bodies listed as impaired by malathion (see Table 2) are included among the counties for which public health applications were reported.

Table 3. Public Health Applications of Malathion, by County.

County	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Butte	975	314	815	125								
Colusa					1,901	4,227	2,131	3,534	4,084	3,905	4,246	498
Fresno	190	120	84	197	170	423	273	196	239	232	134	273
Glenn	535		38		109		117	238	557		1,148	
Los Angeles	6	8	7	1		2	1	1	0			
Merced	6,226	2,293										
San Bernardino				204	82							
San Joaquin							152	480	342	88		
Shasta	430		782	968	884	99			87	278	537	653
Stanislaus	345	325	172	176				198				
Sutter	180	82	37	108	769	178				8	118	40
Tehama	113	29	94		45			64				
Ventura	337		110	228								
Yuba	109	88	8	130	113	19				12	20	

Source: California Department of Pesticide Regulation Pesticide Use Reporting Data,
<https://www.cdpr.ca.gov/docs/pur/purmain.htm>

RPA ineffectiveness in urban (developed) areas and suggested alternatives

Table 4 below shows the Malathion RPA Element proposed in the BiOp that would apply to the "developed" use categories,¹⁸ and that are intended to protect listed salmonid species that can occur in California urban water bodies.¹⁹ The RPA options are the same for all of these species.

¹⁸ The definition of the "Developed" land use category in the National Land Cover Database used in the BiOp (https://www.mrlc.gov/nlcd11_leg.php) appears to include virtually all California coastal and many inland urban and suburban areas that are regulated by Clean Water Act NPDES stormwater permits.

¹⁹ Chinook, coho, and steelhead.

Table 4. RPAs from malathion BiOp (Section 26.2.3)

1 Reduce pesticide loading for all high-risk use sites.
1(a) Remove label authorization for all high risk uses. If current usage on use sites effectively reduces exposure, modify labels to reflect current usage.
1(b) Modify labels to include 300-meter no-spray buffer for all aerial applications; 150 meter buffer for all ground applications; 6 meter vegetative filter strip for all applications.
1(c) Point System. Implement a combination of risk reduction measures to reduce pesticide drift and runoff (Table 7).
2. Restrict mosquito applications to residential and developed areas within species' range.
3. EPA shall, in close coordination with NMFS Office of Protected Resources, develop and implement an effectiveness monitoring plan to ensure the RPA(s) selected is/are feasible, effective, and implemented.

As discussed above, the BiOp does not recognize key characteristics of urban areas that affect the discharge of applied pesticides nor does it demonstrate adequate knowledge of urban use patterns for malathion. These factors interact in a manner that result in exceedances of water quality standards, such as those noted in the 303(d) list of impaired water bodies. Below are specific comments regarding how these factors render the “developed area” RPAs ineffective in the urban context. We suggest potential alternative RPAs that would be practical and effective in urban (developed) areas.

NMFS RPA Element 1(a), Remove label authorization for all high risk uses. The existence of malathion exceedances in urban streams that have resulted in 303(d) listings is evidence that at least some element of “current usage” in urban areas has *not* effectively reduced exposure. As seen in Chart 2, unreported urban usage by unlicensed residents is estimated in all years to greatly exceed urban uses by licensed professionals (reported uses). Product labels include applications to impervious surfaces, which are the most likely sources of impairment of urban water bodies. Product labels also include a number of applications for ornamentals and vegetables which could also be done by unlicensed persons in urban areas. Use surveys indicate that unlicensed residential applicators frequently do not follow label instructions, in particular requirements to properly dilute concentrated products prior to application. This is coupled with the fact that *all* products registered in California that are available to unlicensed persons are concentrates.

Based on these data, the most important “high risk use” to address through “removal of label authorization” is any non-production agricultural application by unlicensed persons. The simplest and most effective means to accomplish this is to prevent sale of malathion products to unlicensed persons.²⁰ This restriction would preserve the use of malathion products by licensed applicators, who are much more likely to apply according to label requirements.

NMFS RPA Element 1(b). Modify labels to include 300-meter no-spray buffer for all aerial applications; 150-meter buffer for all ground applications; 6-meter vegetative filter strip for all applications. As discussed above, urban landscapes and drainage infrastructure act in concert to efficiently transport pollutants from the site of application to receiving waters, especially where the initial application is to an impervious surface. Thus, any buffer zone based on the distance from a receiving water would be ineffective since discharges of malathion that enter the engineered drainage system outside the buffer zone will be transported to the receiving water with little or no attenuation.

Effective buffer zones based on distance from urban drainage systems (including surface street gutters and underground pipe inlets) would essentially rule out applications in most urban areas.

²⁰ See attachment 4 which provides a summary of the products that are labeled for applications that could be done by unlicensed persons.

NMFS RPA Element 1(c) Point System. Implement a combination of risk reduction measures to reduce pesticide drift and runoff (Table 7). This system would not be practical for unlicensed applicators in urban areas. As discussed earlier, such applicators are numerous, currently unregulated (other than the legal requirement for compliance with labels) and essentially invisible to pesticide regulators. It may be possible to institute such a system with licensed applicators, but industry acceptance and implementation would likely be difficult to achieve, and the low level of reported structural and landscape applications would argue against this measure as a necessary and effective alternative.

NMFS RPA Element 2. Restrict mosquito applications to residential and developed areas within species' range. California water quality monitoring data and PUR data indicate that mosquito abatement (public health) malathion applications are rare in urban areas and not linked to documented urban malathion water pollution. However, area wide application of malathion in urban areas, should they occur, would necessarily result in deposition of applied material onto impervious surfaces, which could be expected to facilitate transport to surface waters and potentially cause waters to exceed aquatic life benchmarks. The proposed restriction of mosquito applications to developed areas would reduce malathion risks in rural areas, but would continue risks in urban areas (and potentially increase risks if this RPA relocates malathion use into urban areas).

NMFS RPA Element 3. EPA shall, in close coordination with NMFS Office of Protected Resources, develop and implement an effectiveness monitoring plan to ensure the RPA(s) selected is/are feasible, effective, and implemented. To help EPA and NMFS ensure that the effectiveness monitoring plan will address urban areas appropriately, we request that the process include opportunity for our member agencies and other members of the public and CDPR (which has urban pesticides experts) to participate and comment on the development and implementation of the monitoring plan.

In closing, the occurrence of malathion Clean Water Act 303(d) listings in urban water bodies is consistent with BiOp finding of adverse modification of critical habitat. Analysis of product labels, as well as CDPR sales data and use data, indicate that unreported uses of malathion concentrate products by unlicensed applicators in residential settings may be a major source of malathion in urban runoff. Therefore, CASQA requests that the RPAs include provisions to prevent malathion products being sold to or used by unlicensed persons for non-production agriculture applications.

Thank you for your consideration of our comments. If you have any questions, please contact Dave Tamayo, CASQA Pesticides Subcommittee Co-Chair, at (916) 874-8024 or tamayod@SacCounty.net or CASQA Executive Director Geoff Brosseau at (650) 365-8620.

Sincerely,



Daniel Apt, Chair
California Stormwater Quality Association

Attachments

1. Fact sheets in support of 303(d) listings of urban water bodies impaired by malathion.
2. Method for estimating unreported sales of malathion
3. Malathion data from SURF Database (submitted as a separate Excel file)
4. Summary of the malathion products with labels allowing application to impervious surfaces.

CASQA Comments on NMFS Biological Opinion on Malathion

cc: Rick P. Keigwin, Jr., Director, EPA Office of Pesticide Programs
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Kevin Costello, Branch Chief, EPA OPP, Pesticide Re-Evaluation Division
Marietta Echeverria, Director, EPA OPP, Environmental Fate & Effects Division
Melissa Panger, EPA OPP, Senior Advisor, Environmental Fate & Effects Division
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Jonathan Becker, EPA OPP BEAD
Andrew Sawyers, Director, EPA OW, Office of Wastewater Management
Deborah Nagle, Acting Director, EPA OW, Office of Science and Technology
Tomas Torres, Director, Water Division, EPA Region 9
Debra Denton, EPA Region 9
Eugene Bromley, EPA Region 9
Erin Foresman, EPA Region 9
Patti TenBrook, EPA Region 9
Donna Wieting, NMFS
Cathy Tortorici, NMFS
Tony Hawkes, NMFS
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Patrice Ashfield, FWS
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Matthew Freese, California State Water Resources Control Board
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Daniel McClure, California Regional Water Quality Control Board, Central Valley Region
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Polo Moreno, California Department of Pesticide Regulation
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Chris Hornback, Chief Technical Officer, National Association of Clean Water Agencies
Cynthia Finley, Director, Regulatory Affairs, National Association of Clean Water Agencies
Scott Taylor, Executive Director, National Municipal Stormwater Alliance
CASQA Board of Directors, Executive Program Committee, and Pesticides Subcommittee
Geoff Brosseau, Executive Director, CASQA
Karen Cowan, Assistant Executive Director, CASQA

Appointment

From: Anderson, Brian [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CE7D6E5AD2E94B3F8F5AC4D839A6C268-BRIAN ANDERSON]
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To: Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]; Dyner, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4cd0cdc2070545e5852c81739f765bc5-MDYNER]; Echeverria, Marietta [Echeverria.Marietta@epa.gov]; Rebecca Finley [shawn.finley@sol.doi.gov]; Brown-Kobil, Nancy [nancy.brown-kobil@sol.doi.gov]; Miller, Wynne [Miller.Wynne@epa.gov]; Shultz, Gina [gina_shultz@fws.gov]
CC: Knorr, Michele [knorr.michele@epa.gov]
Subject: Discuss interpretation of the action and defining the action area for pesticide effects determinations - call in number added
Attachments: FWS_EPA_ActionArea_Issue 08.16.2018_FWS comments v2.docx
Location: 10671

Start: 8/21/2018 6:00:00 PM
End: 8/21/2018 7:00:00 PM
Show Time As: Tentative

Please forward as appropriate

Call-in Number

Personal Matters / Ex. 6

Appointment

From: Cleland-Hamnett, Wendy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B84439FCDF02426ABD539D8BB6C9EF6F-CLELAND-HAMNETT, WENDY]
Sent: 6/15/2017 2:26:44 PM
To: Cleland-Hamnett, Wendy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b84439fcd02426abd539d8bb6c9ef6f-Cleland-Hamnett, Wendy]; Beck, Nancy [Beck.Nancy@epa.gov]; Dravis, Samantha [dravis.samantha@epa.gov]; Greenwalt, Sarah [greenwalt.sarah@epa.gov]; Keigwin, Richard [Keigwin.Richard@epa.gov]; Echeverria, Marietta [Echeverria.Marietta@epa.gov]; thomas_irwin@fws.gov; Leach, Sally (Macie) (Federal) [SLeach@doc.gov]; Marigrace.Caminiti@sol.doi.gov; Inge, Carolyn [Inge.Carolyn@epa.gov]; Jewell, Shannon [jewell.shannon@epa.gov]; DCRoomEast3156/DC-EPA-EAST-OCSP [DCRoomEast3156@epa.gov]; Kelly, George (Federal) [George.Kelly@noaa.gov]; connie.smith@osec.usda.gov; Sheryl.kunickis@osec.usda.gov; rebeckah.adcock@osec.usda.gov; ecomstock@doc.gov; Jakob, Avivah [Jakob.Avivah@epa.gov]; ameka_lewis-robinson@ios.doi.gov; Perlis, Robert [Perlis.Robert@epa.gov]; Mclean, Kevin [Mclean.Kevin@epa.gov]; Schwab, Justin [schwab.justin@epa.gov]; Fotouhi, David [fotouhi.david@epa.gov]; daniel.jorjani@sol.doi.gov
CC: Vaden, Stephen - OGC [Stephen.Vaden@ogc.usda.gov]; Bennett, Tate [Bennett.Tate@epa.gov]; casey_hammond@ios.doi.gov; Dyer, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4cd0cdc2070545e5852c81739f765bc5-MDYNER]; Bolen, Brittany [bolen.brittany@epa.gov]; Minoli, Kevin [Minoli.Kevin@epa.gov]; Brown, Byron [brown.byron@epa.gov]
Subject: ESA Interagency Meeting with EPA, Commerce, USDA and DOI (**Personal Matters / Ex. 6**)
Attachments: ESA Background Briefing_6_19_2017.pptx; ESA Meeting Agenda 6.19.docx; ESA Background Briefing_6.19 (short version).pptx
Location: DCRoomEast3156/DC-EPA-EAST-OCSP
Start: 6/19/2017 7:00:00 PM
End: 6/19/2017 8:00:00 PM
Show Time As: Busy

Purpose/Subject: To discuss ESA implementation improvements.

Location Address: 1201 Constitution Avenue, NW – Washington, DC

Invitees for the meeting:

EPA/OCSP-IO

Wendy Cleland-Hamnett
Nancy Beck

EPA/OCSP -OPP

Rick Keigwin
Marietta Echeverria

EPA / OP

Samantha Dravis
Sara Greenwalt

Department of Interior

Casey Hammon Special Assistant to the Secretary (FWS)
Virginia Johnson, Special Assistant to the Secretary (Fish, Wildlife and Parks)

Aurelia Skipwith, Deputy Assistant Secretary
Dan Jorjani, DOI Solicitor

Commerce:

James Uthmeier, Deputy General Counsel (recommended by USDA)
George Kelly
Earl Comstock

USDA:

Stephen Vaden, Acting General Counsel
Rebecka Adcock, Office of the Secretary
Sheryl Kunickis, Director of USDA's Office of Pest Management Policy

Appointment

From: Grable, Melissa [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=017278065A7C4CD68F85ECAFF5596788-GRABLE, MELISSA]
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To: Grable, Melissa [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=017278065a7c4cd68f85ecaff5596788-Grable, Melissa]; Dyner, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4cd0cdc2070545e5852c81739f765bc5-MDYNER]; Brady, Donald [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8d6446d537284593ae0027d0f753be40-Donald Brady]; Pease, Anita [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dbbef4b4951144499885d4cdf88d46d0-Anita Pease]; Keigwin, Richard [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=151baabb6a2246a3a312f12a706c0a05-Richard P Keigwin Jr]; Cowles, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=684502c4acad4894b1fed6fae1c6d74d-Cowles, James]; Panger, Melissa [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3ae9780510d84f499c8465fb70de5cda-Melissa Panger]; Garber, Kristina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c4fbfbf6569041f4bd559765e027aa31-Kristina Garber]; Eckel, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8adc2f9386674e30849b988c45dbbd1e-William Eckel]; Connolly, Jennifer [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c807828d47064f349fc01c6cdcd4fa94-Connolly, J]; Thawley, Michelle [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3637a9a3f1594d56bfa326f5a5913302-Michelle Thawley]; Lennartz, Steven [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e2ca08d6125846bea998f4a27afb7aee-Lennartz, S]; Lehmann, Wade [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e5dd685dec4643478e64efb18c1b1429-Lehmann, Wade]; Behl, Betsy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d17d5a871e0244869ea996a9de657bcf-Betsy Behl]; Gallagher, Kathryn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a348a17672da45eb8deef9f452ac235-Gallagher, Kathryn]; Eiden, Catherine [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=80f5df8aa614a3e9abd4ce50d378210-Catherine A Eiden]; Corbin, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1db182663b134e46b3fec580f8e0b5f2-Mark Corbin]; Rossmeisl, Colleen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6b18311c740a4535907e690aca5f5924-Rossmeisl,]; Stebbins, Katherine [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=99dc63bc633f4be7874792d3fa0249c6-Katherine Stebbins]; Bohaty, Rochelle [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8d99f46732a44cb5bef6aaa0f4595c3f-Bohaty, Rochelle]; Schuler, Dominic [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=451ebd6e0fd34899a8319639ef6fefb3-Schuler, Dominic]; Peck, Charles [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0cbc0cec2936457ea649fcd45eb1910c-Peck, Charles]; Odenkirchen, Edward [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=47e6bf402eed49ca8172e0849067d334-Edward W Odenkirchen]; White, Katrina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=95c5165bf0624f3c8c8c6e74d21e1185-Katrina White]; Glaberman, Scott [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dda95d77af3e492a8c4512bcd520667d-Glaberman, Scott]; Donovan, Elizabeth [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=35558cd8d0a249b7bfcf097bac82814c-Riley, Elizabeth]; Shelby, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=35558cd8d0a249b7bfcf097bac82814c-Riley, Elizabeth];

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 (FYDIBOHF23SPDLT)/cn=Recipients/cn=f09911639eeb4c2e8fcc7c1578f6e6a3-Thomas F Moriarty]; Cathy Laetz - NOAA Federal [cathy.laetz@noaa.gov]; cathy.tortorici@noaa.gov [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1bdaaff0c14a4264abc82f1468af694d-cathy.tortorici@noaa.gov]; Tony Hawkes - NOAA Federal [tony.hawkes@noaa.gov]; Thomas Hooper - NOAA Federal [thomas.hooper@noaa.gov]; Scott Hecht - NOAA Federal [scott.hecht@noaa.gov]; David Baldwin - NOAA Federal [David.Baldwin@noaa.gov]; Patrice Ashfield [patrice_ashfield@fws.gov]; nancy_golden@fws.gov; Noguchi, George [george_noguchi@fws.gov]; Paul, Keith [keith_paul@fws.gov]; 'karen_myers@fws.gov'; pamelalawrence@noaa.gov; craig_aubrey@fws.gov; gina_shultz@fws.gov; Gail Bingham [gbingham@resolv.org]; Kanarek, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group
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CC: Borges, Shannon [/o=ExchangeLabs/ou=Exchange Administrative Group
 (FYDIBOHF23SPDLT)/cn=Recipients/cn=e78cd882e0e14fb69be93ddd0663b582-Shannon Borges]; Drewes, Scott [/o=ExchangeLabs/ou=Exchange Administrative Group
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Subject: NAS November Workshop with the Services

Attachments: 20141002_Visitor Parking_Shuttle Drop Off.docx; FWS HQ Move_Shuttle Services Overview and FAQs_20140821 (1).pdf; FINAL Agenda_NAS ESA Nov 2014 Workshop.docx; Sign in sheet for Day 1 of November 2014 Pesticide Workshop.pdf; Milestone Dates for ESA Consultations.docx

Location: U.S. Fish and Wildlife Service, Skyline, Building 7, 5275 Leesburg Pike, Bailey's Crossroads

Start: 11/17/2014 2:00:00 PM
End: 11/17/2014 10:00:00 PM
Show Time As: Tentative

Recurrence: Daily
every day from 9:00 AM to 5:00 PM

The meeting will be held at the U.S. Fish and Wildlife Service, Skyline, Building 7, 5275 Leesburg Pike, Bailey's Crossroads. Public parking is available, follow the blue signs to the lot. There is fee (\$20) for all day use. Meeting will be held in the Rachel Carson Room. You will need to present identification at the Security check-in.

Personal Matters / Ex. 6

Instant Net Conference Details:

Personal Matters / Ex. 6

Join Instructions for Instant Net Conference:

1. Join the meeting now:
<http://www.mymeetings.com/nc/join.php?sigKey=mymeetings&i=446974598&p=444555&t=c>
2. Enter the required fields.
3. Indicate that you have read the Privacy Policy.
4. Click on Proceed.



20141002_Visitor
Parking_Shuttle ...



FWS HQ
Move_Shuttle Se...



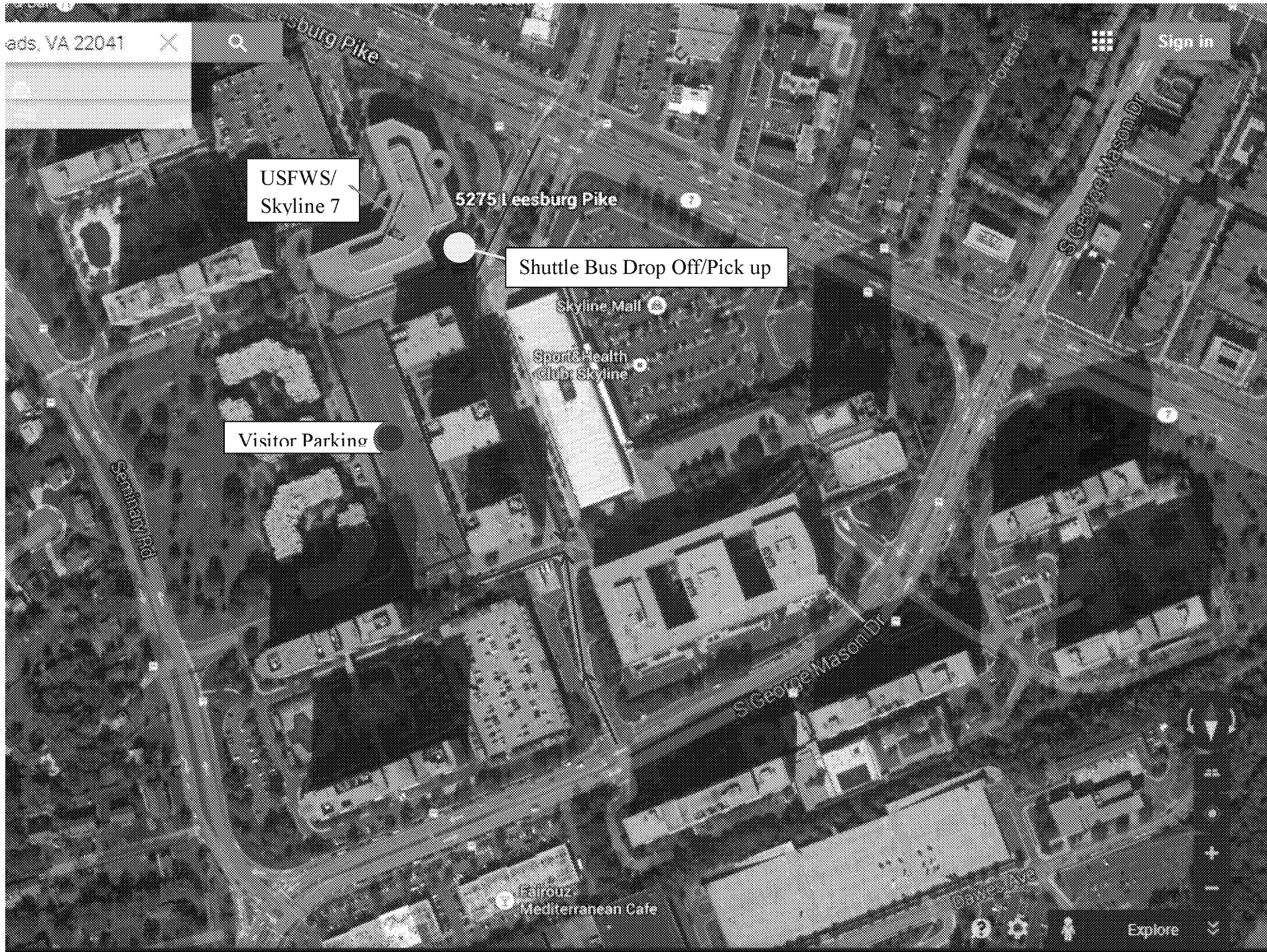
FINAL
Agenda_NAS ES...



Sign in sheet for
Day 1 of Novem...



Milestone Dates
for ESA Consulta...





Skyline Shuttle Services

This document includes Frequently Asked Questions about the Skyline shuttle services, as well as detailed schedules and route information for the four shuttles available to U.S. Fish and Wildlife Service (FWS, Service) employees and visitors to Skyline Seven.

What shuttle services are available to FWS employees and visitors? There are four shuttle services available to FWS employees and visitors:

- A. **Skyline / Ballston Metro** (operated by Chariots for Hire; managed by Vornado)
- B. **Skyline / Pentagon City Metro / Crystal City Metro** (operated by Chariots for Hire; managed by Vornado)
- C. **Skyline Seven / Main Interior Building** (operated by International Limo; managed by FWS)
- D. **Skyline Seven / Main Interior Building / Farragut North Metro** (operated by International Limo; managed by FWS)

Where can I find the latest shuttle schedules? The shuttle schedules as of August 21, 2014 are included in the following pages. You can always find the latest shuttle schedules on the Contracting and General Services (CGS) site on InsideFWS: <https://inside.fws.gov/index.cfm/go/post/cfm-FacilitiesShuttle>. Be sure to sign up for updates from the site so that you have the latest shuttle schedules – you can manage your subscription to the site here: <https://inside.fws.gov/go/post/cfm-FacilitiesShuttle>. Do not use the link to the Anser website distributed prior to the move; the Anser site is not managed or updated by FWS.

What is the best source of information for shuttle delays and cancellations? The CGS site is the best source of information for shuttle delays and cancellations.

Who manages the FWS shuttle services? Lillian Brown-Starkey (Lillian_BrownStarkey@fws.gov) manages the FWS shuttle services, and is the best point of contact to reach out to with shuttle issues, including shuttles not arriving on schedule and any safety concerns.

Where do the buses pick up and drop off at Skyline Seven? All four of the shuttle services pick up and depart from the driveway in front of Skyline Seven. If this driveway is occupied (e.g., by a delivery truck or taxi), the buses may pick up / drop off in front of the Subway restaurant adjacent to Skyline Seven. If this alternate location is used, the shuttle driver will get out of the bus and notify any passengers standing in front of Skyline Seven of the alternate location and wait for them to board the shuttle.

How long do the buses wait at the shuttle stops? The times listed in the shuttle schedules are the times that the buses depart from the stops. Buses may be running a few minutes ahead of or behind schedule due to traffic or other unforeseen delays. If a bus is running ahead of schedule, it will remain parked at the stop until the listed departure time. If it is running on time / behind schedule, it will stop briefly to allow any passengers to get on / off the shuttle, and then depart for the next stop. You should arrive at the shuttle stop five minutes ahead of the scheduled departure to help ensure you do not miss the bus.

Why don't all of our shuttles look the same? The shuttles are operated by different companies under separate contracts. There are pictures of each of the buses in the pages that follow, which should help you locate the right bus for each route.



Why did we add a shuttle stop at the Farragut North Metro? The results of the FWS Commuter Survey conducted in February 2014 indicated that there was demand for a shuttle stop on the Metro's Red Line. The Farragut North Metro shuttle stop was added in response to the survey for a trial period of one year. International Limo is collecting data on ridership and we will re-evaluate the inclusion of the Farragut North Metro stop in July 2015.

How did we determine the times / schedules for the shuttles? This differs by shuttle:

- For the ***Skyline / Ballston Metro shuttle***, Vornado operates the shuttle for us in accordance with our lease, which specifies that they must provide a shuttle between Skyline Seven and the nearest Metrorail station at 15 minute intervals between 6am and 9am and 3:30pm and 6:30pm daily, and 30 minute intervals between 9am and 3:30pm daily.
- For the ***Skyline / Pentagon City Metro / Crystal City Metro shuttle***, Vornado has extended use of the shuttle to FWS employees, but operates this shuttle primarily for another Skyline tenant. We do not have any control over this shuttle schedule or the stops that the shuttle makes.
- For the ***Skyline Seven / Main Interior Building shuttle***, we adjusted the "old" MIB shuttle schedule from Arlington to incorporate feedback that shuttles should arrive at MIB in time to facilitate attendance at meetings that start at the top of the hour; we also used the feedback from the February 2014 FWS Commuter Survey to determine "peak commuting times" and made sure shuttles were running during those times.
- For the ***Skyline Seven / Main Interior Building / Farragut North Metro shuttle***, we used the feedback from the February 2014 FWS Commuter Survey to determine "peak commuting times" and scheduled around those times.

Are we going to re-evaluate the shuttle schedules? We will re-evaluate the schedules for the Skyline Seven / Main Interior Building and Skyline Seven / Main Interior Building / Farragut North Metro shuttles after six months in the building. The shuttle companies collect data on ridership, which should help us adjust / "right-size" our shuttle services. Please note that the shuttle schedules are part of contractual agreements with the service providers and cannot be adjusted on a frequent or real time basis to meet fluctuating or seasonal needs.

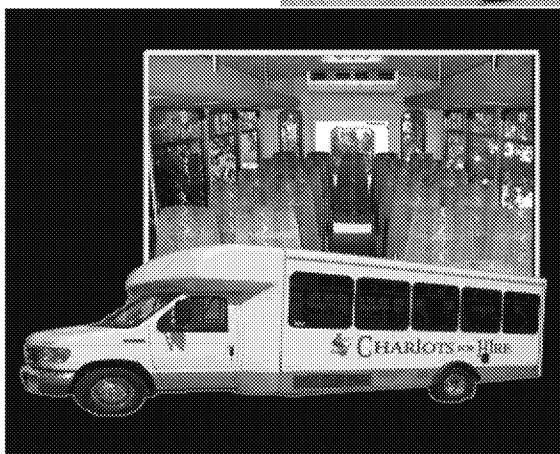
Are our shuttles compliant with the Americans with Disabilities Act (ADA)? Yes, ADA compliance is a term of our contract with each shuttle company. All of the shuttles include motorized lifts. In the event that the electrical component of the lift is out of service, the drivers are trained to operate the lifts manually. If a lift is not functional, the shuttle company is required to pull the bus from the route and replace it with a bus that has a functional lift.

Why wasn't the driver on the Main Interior Building shuttle when I boarded the bus? The driver of the Skyline Seven / Main Interior Building shuttle is responsible for picking up interoffice mail from the Main Interior Building and delivering it to the Skyline Seven mail room. If the driver is not on the bus when you board, he / she is likely picking up or delivering mail and will return momentarily.

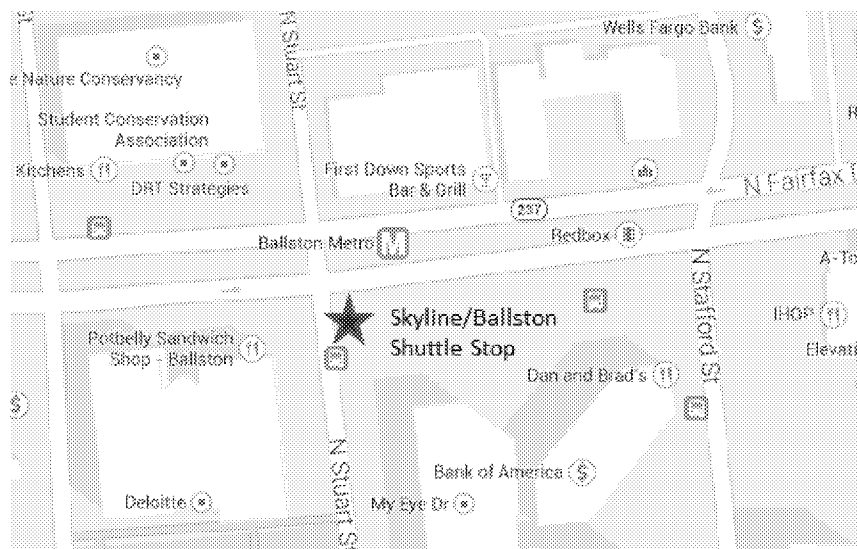


A. Skyline / Ballston Metro Shuttle

The shuttle service outlined on the following page consists of three buses running “loops” between the Ballston Metro and Skyline. In addition to stopping at the FWS Headquarters building (Skyline Seven), the buses also stop at Skyline Four. These shuttles are operated by Vornado through a contract with Chariots for Hire. The types of buses that service the route are pictured below.



On the map below, the star marks where the buses pick up from Ballston Metro (corner of N. Fairfax and N. Stuart, in front of Ballston Metro sign and hot dog vendor).





A. Skyline / Ballston Metro Shuttle (continued from prior page)

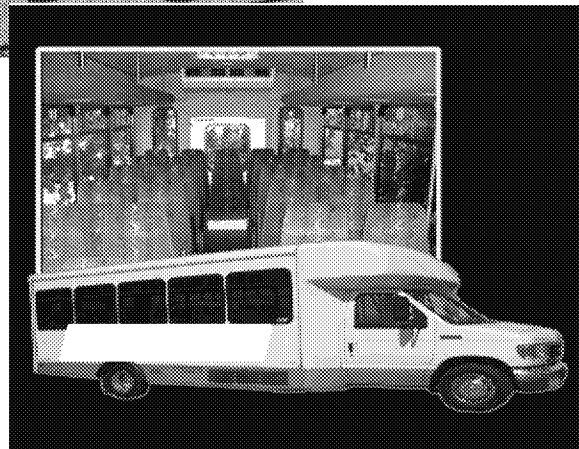
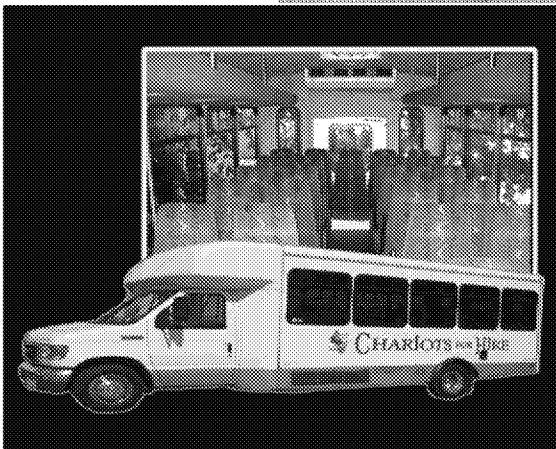
The times listed in the shuttle schedule below are the times that the bus leaves each stop. If a bus is running ahead of schedule, it will remain parked at the stop until the listed departure time. If it is running on time / behind schedule, it will stop briefly to allow any passengers to get on / off the shuttle, and then depart for the next stop.

BALLSTON STATION METRO	5275 LEESBURG PIKE (7 SKYLINE PLACE)	5113 LEESBURG PIKE (4 SKYLINE PLACE)
<i>Initial Pick-Up:</i> 6:00 am	6:20 am	6:25 am
6:15 am	6:35 am	6:40 am
6:30 am	6:50 am	6:55 am
6:45 am	7:05 am	7:10 am
7:00 am	7:20 am	7:25 am
7:15 am	7:35 am	7:40 am
7:30 am	7:50 am	7:55 am
7:45 am	8:05 am	8:10 am
8:00 am	8:20 am	8:25 am
8:15 am	8:35 am	8:40 am
8:30 am	8:50 am	8:55 am
8:45 am	9:05 am	9:10 am
9:00 am	9:20 am	9:25 am
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10:00 am	10:20 am	10:25 am
10:30 am	10:50 am	10:55 am
11:00 am	11:20 am	11:25 am
11:30 am	11:50 am	11:55 am
12:00 pm	12:20 pm	12:25 pm
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5:15 pm	5:35 pm	5:40 pm
5:30 pm	5:50 pm	5:55 pm
5:45 pm	6:05 pm	6:10 pm
6:00 pm	6:20 pm	6:25 pm
6:15 pm Drop Only		
6:30 pm Drop Only		
6:45 pm Drop Only		

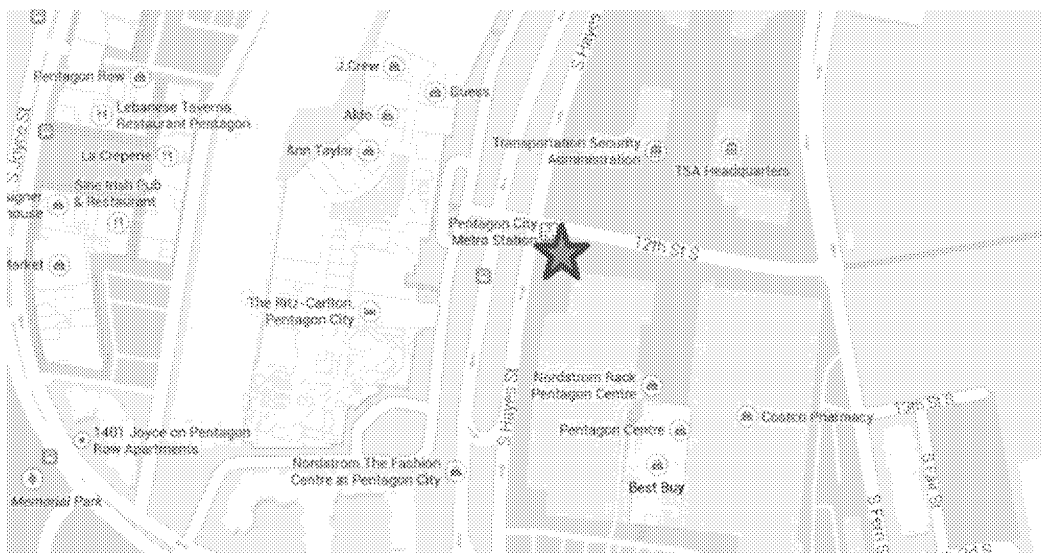


B. Skyline / Pentagon City / Crystal City Metro Shuttle

The shuttle service outlined on the following page consists of one bus on a “loop” between Skyline, Pentagon City and Crystal City. This shuttle is operated by Vornado (building management company) through a contract with Chariots for Hire and primarily for another Skyline tenant. FWS employees may use this shuttle, but should be aware that it makes multiple stops and that FWS does not control the schedule or the stops for this shuttle. The types of buses that service the route are pictured below.



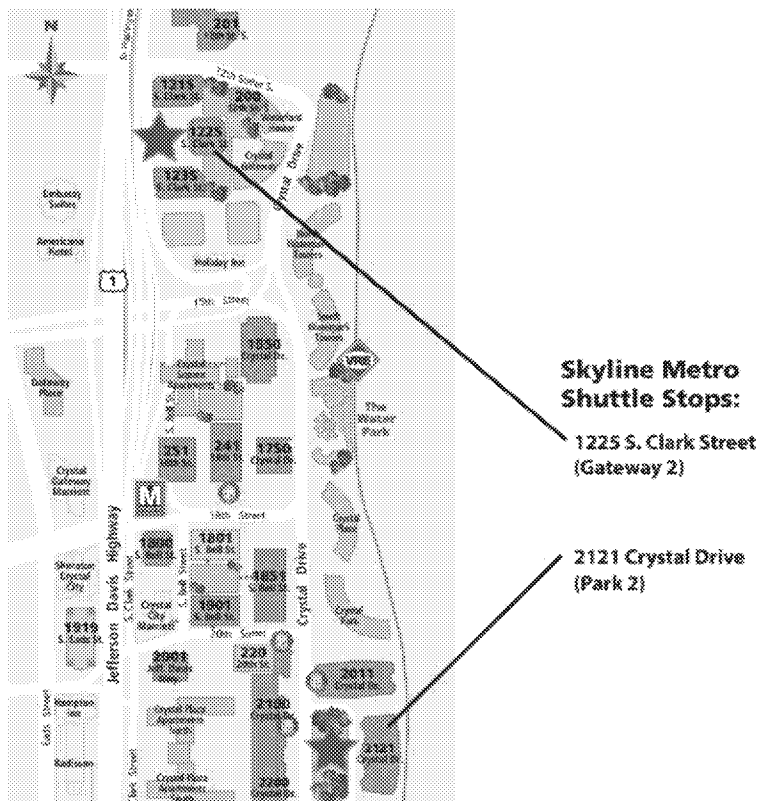
On the map below, the star marks where the buses pick up from Pentagon City (corner of 12th Street South and South Hayes Street, at the Metro station entrance on the south-bound side of the street).





B. Skyline / Pentagon City / Crystal City Metro Shuttle (continued from prior page)

On the map below, the stars marks where the buses pick up from Crystal City.



The times listed in the shuttle schedule below are the times that the bus leaves each stop. If a bus is running ahead of schedule, it will remain parked at the stop until the listed departure time. If it is running on time / behind schedule, it will stop briefly to allow any passengers to get on / off the shuttle, and then depart for the next stop. The Pentagon City, Crystal City and Skyline Seven stops are highlighted.

PENTAGON CITY METRO	5275 LEESBURG PIKE (7 SKYLINE PLACE)	5113 LEESBURG PIKE (4 SKYLINE PLACE)	PCM	2121 CRYSTAL DRIVE (PARK 2)	1225 SOUTH CLARK (GATEWAY 2)
Initial Pick Up:					
6:10 am	6:30 am	6:35 am	6:45 am	6:50 am	6:55 am
7:00 am	7:35 am	7:40 am	7:50 am	7:55 am	8:00 am
8:05 am	8:40 am	8:45 am	8:55 am	9:00 am	9:05 am
9:10 am	9:45 am	9:50 am	10:00 am	10:05 am	10:10 am
10:15 am	10:50 am	10:55 am	11:05 am	11:10 am	11:15 am
11:20 am	11:55 am	12:00 pm	12:10 pm	12:15 pm	12:20 pm
12:25 pm	1:00 pm	1:05 pm	1:15 pm	1:20 pm	1:25 pm
1:30 pm	2:05 pm	2:10 pm	2:20 pm	2:25 pm	2:30 pm
2:35 pm	3:10 pm	3:15 pm	3:25 pm	3:30 pm	3:35 pm
3:40 pm	4:15 pm	4:20 pm	4:30 pm	4:35 pm	4:40 pm
4:45 pm	5:20 pm	5:25 pm	5:35 pm	5:40 pm	5:45 pm
Final Drop:					
5:50 pm					



C. Skyline Seven / Main Interior Building Shuttle

The shuttle service outlined below consists of one bus serving the Main Interior Building (MIB) and Skyline Seven throughout the day. This bus is operated by International Limo through a contract with the Service and displays the FWS logo in the window. It looks like this:



The times listed are the times that the bus leaves each stop; the bus may be parked at the stop for a few minutes in order for the driver to pick up the mail pouch from MIB or deliver it to the FWS Headquarters mail room.

Skyline Seven <i>5275 Leesburg Pike</i>	Main Interior Building <i>18th & C</i>
7:25am first pick-up Bus 1 service	7:55am
8:25am	8:55am
9:25am	9:55am
10:25am	10:55am drop only
n/a – Lunch	11:55am pick-up only
12:25pm	12:55pm
1:25pm	1:55pm
2:25pm	2:55pm
3:25pm	3:55pm
4:35pm	5:05pm
5:35pm	6:05pm
6:35pm	7:05pm drop only – end of Bus 1 service



D. Skyline Seven / Main Interior Building / Farragut North Metro Shuttle

The shuttle service outlined below consists of one bus serving the Main Interior Building (MIB), Farragut North Metro (1050 Connecticut Ave., Washington Square) and Skyline Seven during peak commuting times. This bus is operated by International Limo through a contract with the Service and displays the FWS logo in the window. It looks like this:



The times listed are the times that the bus leaves each stop.

Main Interior Building 18 th & C	Farragut North Metro 1050 Connecticut Ave., Washington Square	Skyline Seven 5275 Leesburg Pike
7:25am first pick-up Bus 2 am service	7:35am	7:55am
8:25am	8:35am	8:55am
9:25am	9:35am	9:55am
10:25am drop only – end of Bus 2 am service	n/a	n/a
n/a	n/a	4:05pm first pick-up Bus 2 pm service
4:25pm	4:35pm	5:05pm
5:25pm	5:35pm	6:05pm
6:25pm	6:35pm	7:05pm drop only – end of Bus 2 pm service

11-17-14

Pesticide Workshop III

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Appointment

From: Anderson, Brian [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CE7D6E5AD2E94B3F8F5AC4D839A6C268-BRIAN ANDERSON]
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To: Dynner, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4cd0cdc2070545e5852c81739f765bc5-MDYNER]; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; Rebecca Finley [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user425722f8]; Brown-Kobil, Nancy [nancy.brown-kobil@sol.doi.gov]; Miller, Wynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]
Subject: Discuss interpretation of the action and defining the action area for pesticide effects determinations
Attachments: FWS_EPA_ActionArea_Issue 08.16.2018_FWS comments v2.docx
Location: 10671

Start: 8/21/2018 6:00:00 PM
End: 8/21/2018 7:00:00 PM
Show Time As: Tentative

Please forward as appropriate

Appointment

From: Anderson, Brian [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CE7D6E5AD2E94B3F8F5AC4D839A6C268-BRIAN ANDERSON]
Sent: 8/16/2018 8:41:16 PM
To: Dynner, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4cd0cdc2070545e5852c81739f765bc5-MDYNER]; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; Rebecca Finley [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user425722f8]; Brown-Kobil, Nancy [nancy.brown-kobil@sol.doi.gov]; Miller, Wynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]
Subject: Discuss interpretation of the action and defining the action area for pesticide effects determinations
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Location: 10671

Start: 8/21/2018 7:00:00 PM
End: 8/21/2018 8:00:00 PM
Show Time As: Tentative

Please forward as appropriate

Appointment

From: Milhouse, Gloria [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0A424462E03C4A82BA83121D59D8B34D-GMILHOUS]
Sent: 6/19/2017 7:13:33 PM
To: Beck, Nancy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=168ecb5184ac44de95a913297f353745-Beck, Nancy]; Dravis, Samantha [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ece53f0610054e669d9dffe0b3a842df-Dravis, Sam]; Greenwalt, Sarah [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6c13775b8f424e90802669b87b135024-Greenwalt,]; Keigwin, Richard [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=151baabb6a2246a3a312f12a706c0a05-Richard P Keigwin Jr]; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; thomas_irwin@fws.gov; Leach, Sally (Macie) (Federal) [SLeach@doc.gov]; Marigrace.Caminiti@sol.doi.gov; Inge, Carolyn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7f763e42702a4f468cdf42323ee94520-Cinge]; Jewell, Shannon [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1862c405cf704ee692d5f61faff12688-Jewell, Sha]; DCRoomEast3156/DC-EPA-EAST-OCSP [o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user8bf52b5e]; Kelly, George (Federal) [George.Kelly@noaa.gov]; connie.smith@osec.usda.gov; Sheryl.kunickis@osec.usda.gov; rebeckah.adcock@osec.usda.gov; ecomstock@doc.gov; Jakob, Avivah [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ca1aecd941984ff2939fe77425b0e2f3-Jakob, Avivah]; ameka_lewis-robinson@ios.doi.gov; Perlis, Robert [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b74bb55bb480452d99e3e4fd07c06889-RPERLIS]; Mclean, Kevin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=869a9152d655420594d8f94a966b8892-KMCLEAN]; Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]; Fotouhi, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=febaf0d56aab43f8a9174b18218c1182-Fotouhi, Da]; daniel.jorjani@sol.doi.gov
CC: Vaden, Stephen - OGC [Stephen.Vaden@ogc.usda.gov]; Bennett, Tate [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1fa92542f7ca4d01973b18b2f11b9141-Bennett, El]; casey_hammond@ios.doi.gov; Dyer, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4cd0cdc2070545e5852c81739f765bc5-MDYNER]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]; Minoli, Kevin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c9c0070d651a4625ac20258369f9b050-KMINOLI]; Brown, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9242d85c7df343d287659f840d730e65-Brown, Byro]
Subject: ESA Interagency Meeting with EPA, Commerce, USDA and DOI (Personal Matters / Ex. 6)
Attachments: ESA Background Briefing_6_19_2017.pptx; ESA Meeting Agenda 6.19.docx; ESA Background Briefing_6.19 (short version).pptx
Location: DCRoomEast3156/DC-EPA-EAST-OCSP
Start: 6/19/2017 7:00:00 PM
End: 6/19/2017 8:00:00 PM
Show Time As: Tentative

Purpose/Subject: To discuss ESA implementation improvements.

Location Address: 1201 Constitution Avenue, NW – Washington, DC

Invitees for the meeting:

EPA/OCSP-IO

Wendy Cleland-Hamnett

Nancy Beck

EPA/OCSP-OPP

Rick Keigwin

Marietta Echeverria

EPA / OP

Samantha Dravis

Sara Greenwalt

Department of Interior

Casey Hammon Special Assistant to the Secretary (FWS)

Virginia Johnson, Special Assistant to the Secretary (Fish, Wildlife and Parks)

Aurelia Skipwith, Deputy Assistant Secretary

Dan Jorjani, DOI Solicitor

Commerce:

James Uthmeier, Deputy General Counsel (recommended by USDA)

George Kelly

Earl Comstock

USDA:

Stephen Vaden, Acting General Counsel

Rebecka Adcock, Office of the Secretary

Sheryl Kunickis, Director of USDA's Office of Pest Management Policy

Appointment

From: Anderson, Brian [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CE7D6E5AD2E94B3F8F5AC4D839A6C268-BRIAN ANDERSON]
Sent: 8/21/2018 5:24:52 PM
To: Dynner, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4cd0cdc2070545e5852c81739f765bc5-MDYNER]; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; Rebecca Finley [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user425722f8]; Brown-Kobil, Nancy [nancy.brown-kobil@sol.doi.gov]; Miller, Wynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]
CC: Knorr, Michele [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5e2165e5c2224bac8d33c2f857c33886-MKnorr]
Subject: Discuss interpretation of the action and defining the action area for pesticide effects determinations - call in number added
Attachments: FWS_EPA_ActionArea_Issue 08.16.2018_FWS comments v2.docx
Location: 10671
Start: 8/21/2018 6:00:00 PM
End: 8/21/2018 7:00:00 PM
Show Time As: Tentative

Please forward as appropriate

Call-in Number

Personal Matters / Ex. 6

Message

From: Echeverria, Marietta [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=36C56B7169144626BD6AADEA25992D4E-MARIETTA ECHEVERRIA]
Sent: 1/4/2018 5:27:10 PM
To: Keigwin, Richard [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=151baabb6a2246a3a312f12a706c0a05-Richard P Keigwin Jr]; Dyer, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4cd0cdc2070545e5852c81739f765bc5-MDYNER]; Guilaran, Yu-Ting [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a698774e93e34a2b9181d4b3032b8a32-ytguilar]; Pease, Anita [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dbbef4b4951144499885d4cdf88d46d0-Anita Pease]; Miller, Wynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; cathy.tortorici@noaa.gov [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1bdaaff0c14a4264abc82f1468af694d-cathy.tortorici@noaa.gov]; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]; Kunickis, Sheryl - OSEC [sheryl.kunickis@osec.usda.gov]
Subject: Inside EPA article re: BiOps

<https://insideepa.com/daily-feed/administration-completes-novel-esa-pesticide-biops>

Administration completes novel ESA pesticide BiOps

January 03, 2018

The Trump administration has completed final biological opinions (BiOps) of the first chemicals to undergo a novel Obama-era process for assessing pesticides' risks to endangered species and forwarded the documents to EPA after a federal court declined the administration's request to postpone an end-of-2017 deadline for the reviews.

"Defendant, the National Marine Fisheries Service ("NMFS"), hereby provides notice that on December 29, 2017, NMFS completed and transmitted to [EPA] its final Endangered Species Act [(ESA)] biological opinion regarding EPA's registration of the pesticides chlorpyrifos, malathion, and diazinon," Justice Department (DOJ) attorneys say in a [Dec. 29 notice](#) to the U.S. District Court for the Western District of Washington.

In a [motion filed the same day](#), DOJ attorneys withdrew their [Nov. 9 request](#) for a two-year delay, from Dec. 31, 2017 to Dec. 31, 2019, for completing first three reviews, which the court did not grant.

"Because Defendant's Motion to Amend sought an extension of time to finalize that biological opinion, and NMFS has now completed that same biological opinion, the Motion to Amend is moot," the filing says.

The November request sought to modify a May 2014 settlement of an environmentalist lawsuit, *Northwest Center for Alternatives to Pesticides et al. v. NMFS*, that compelled ESA review of the organophosphate pesticides chlorpyrifos, malathion and diazinon.

EPA evaluations conducted to support the first three BiOps found uses of all three chemicals likely to harm listed species and their critical habitat. The BiOps do not appear on NMFS website, and so the findings of the final reviews are unclear.

Environmentalists have long feared that the Trump administration would fail to meet the year-end deadline for consultation on the risks of the three pesticides to listed species after the pesticide industry last spring asked Trump officials [to scrap the new process](#), and wildlife officials requested a two-year delay of the deadline for completion.

An official with the Center for Biological Diversity (CBD) tells *Inside EPA* that environmentalists are awaiting release of the final BiOps to see whether they deem the pesticides harmful to species, and that advocates will closely track EPA's implementation of protections for species the BiOps may recommend.

"It's up to EPA to analyze the [BiOp] and make whatever changes are needed based on those opinions," the source said. "This was the most rigorous complex consultation that the agencies have ever undertaken, and we are grateful they did the right thing by [forwarding] the documents, and we'll say more when we see if they followed the law."

Settlement agreements reached with environmental groups required that EPA and federal wildlife officials complete consultation on risks of chlorpyrifos, diazinon and malathion by December 2017, and on carbaryl and methomyl by December 2018. Additional settlements also set deadlines for review of four other ingredients, including glyphosate, the world's most commonly used herbicide.

Message

From: Jakob, Avivah [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CA1AEC941984FF2939FE77425B0E2F3-JAKOB, AVIVAH]
Sent: 6/15/2017 9:27:57 PM
To: Beck, Nancy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=168ecb5184ac44de95a913297f353745-Beck, Nancy]; Dravis, Samantha [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ece53f0610054e669d9dffe0b3a842df-Dravis, Sam]; Greenwalt, Sarah [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6c13775b8f424e90802669b87b135024-Greenwalt,]; Keigwin, Richard [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=151baabb6a2246a3a312f12a706c0a05-Richard P Keigwin Jr]; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; thomas_irwin@fws.gov; Leach, Sally (Macie) (Federal [SLeach@doc.gov]; Marigrace.Caminiti@sol.doi.gov; Inge, Carolyn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7f763e42702a4f468cdf42323ee94520-Cinge]; Jewell, Shannon [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1862c405cf704ee692d5f61faff12688-Jewell, Sha]; Kelly, George (Federal [George.Kelly@noaa.gov]; connie.smith@osec.usda.gov; Sheryl.kunickis@osec.usda.gov; rebeckah.adcock@osec.usda.gov; ecomstock@doc.gov; Jakob, Avivah [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ca1aecd941984ff2939fe77425b0e2f3-Jakob, Avivah]; ameka_lewis-robinson@ios.doi.gov; Perlis, Robert [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b74bb55bb480452d99e3e4fd07c06889-RPERLIS]; Mclean, Kevin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=869a9152d655420594d8f94a966b8892-KMCLEAN]; Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]; Fotouhi, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=febaf0d56aab43f8a9174b18218c1182-Fotouhi, Da]; Vaden, Stephen - OGC [Stephen.Vaden@ogc.usda.gov]; Bennett, Tate [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1fa92542f7ca4d01973b18b2f11b9141-Bennett, El]; casey_hammond@ios.doi.gov; Dyer, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4cd0cdc2070545e5852c81739f765bc5-MDYNER]; daniel.jorjani@sol.doi.gov; Cleland-Hamnett, Wendy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b84439fcd02426abd539d8bb6c9ef6f-Cleland-Hamnett, Wendy]; Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]; Cleland-Hamnett, Wendy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b84439fcd02426abd539d8bb6c9ef6f-Cleland-Hamnett, Wendy]
Subject: Background Information for ESA Interagency Meeting (June 19, 2017)
Attachments: ESA Background Briefing_6_19_2017.pptx

Good afternoon,

Please find attached background information (powerpoint slide deck) in preparation for the endangered species interagency meeting scheduled for next Monday, June 19, 2017. The meeting agenda will be sent separately.

Regards,

Avivah Jakob
Acting Special Assistant
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency

1200 Pennsylvania Ave., NW
Washington, DC 20460
Tel. (202) 564.3256

Message

From: Cathy Tortorici - NOAA Federal [cathy.tortorici@noaa.gov]
Sent: 1/9/2018 9:42:12 PM
To: Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; Villanueva, Philip [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=93adaf07438a402faa959bb6d04e7d86-Villanueva, Phillip]; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]; Kunickis, Sheryl [Sheryl.Kunickis@osec.usda.gov]; George Noguchi [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userbe760c8b]; Patrice Ashfield [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user1f5a6e17]; Craig_Aubrey@fws.gov
CC: Nancy Brown-Kobil [nancy.brown-kobil@sol.doi.gov]; Dyer, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4cd0cdc2070545e5852c81739f765bc5-MDYNER]; Pamela Lawrence - NOAA Federal [pamela.lawrence@noaa.gov]; Scott Hecht [Scott.Hecht@noaa.gov]; Tony Hawkes [tony.hawkes@noaa.gov]; Thomas Hooper - NOAA Federal [thomas.hooper@noaa.gov]; Ryan DeWitt [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user2424ebd]; David Baldwin - NOAA Federal [david.baldwin@noaa.gov]; Cathy Laetz - NOAA Federal [cathy.laetz@noaa.gov]; Julann Spromberg - NOAA Affiliate [julann.spromberg@noaa.gov]; Daniel Pollak - NOAA Federal [daniel.pollak@noaa.gov]
Subject: Final Biological Opinion on EPA's Registration of Pesticides under the FIFRA Regarding Chlorpyrifos, Diazinon, and Malathion

Dear all -

The
Pesticides
BiOp is now available online for download
at <https://www.fisheries.noaa.gov/resource/document/biological-opinion-pesticides>

This page includes
a descriptive statement about the BiOp in the summary block.

Feel free to distribute the link as needed.

Just give a call if you have questions -

Cathy T.

--

Cathy Tortorici
Chief, ESA Interagency Cooperation Division
Office of Protected Resources
NOAA's National Marine Fisheries Service
1315 East-West Highway

Silver Spring, MD 20910
(w) 301.427.8495
(c) 301.602.2193
cathy.tortorici@noaa.gov

Appointment

From: Gina_Shultz@fws.gov [gina_shultz@fws.gov]
Sent: 3/22/2018 11:47:03 AM
To: Gina_Shultz@fws.gov [gina_shultz@fws.gov]; NMFS - HQ - PR5 Conference Line [noaa.gov_33333437383537302d343932@resource.calendar.google.com]; Miller, Wynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; Patrice Ashfield [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user1f5a6e17]; Paula.JonesYates@noaa.gov [paula.jonesyates@noaa.gov]; Perry, Tracy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ffd9b082a6484fe8a70cade93a68466c-Tracy L Perry]; cathy.tortorici@noaa.gov [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1bdaaff0c14a4264abc82f1468af694d-cathy.tortorici@noaa.gov]; craig_aubrey@fws.gov; Guilaran, Yu-Ting [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a698774e93e34a2b9181d4b3032b8a32-ytguilar]; Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]; sheryl.kunickis@osec.usda.gov; Sims, Diann [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ca5706c9da345c5af43f0899cf3a8df-Diann Sims]; ashley_stilson@fws.gov; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]
Subject: Updated invitation: ESA/Pesticide Senior Managers @ Thu Mar 22, 2018 10am - 11am (EDT) (echeverria.marietta@epa.gov)
Attachments: invite.ics
Location: NMFS - HQ - PR5 Conference Line
Start: 3/22/2018 2:00:00 PM
End: 3/22/2018 3:00:00 PM
Show Time As: Tentative
Recurrence: (none)

This event has been changed.

[more details »](#)

ESA/Pesticide Senior Managers

When Changed: Thu Mar 22, 2018 10am – 11am Eastern Time

Where NMFS - HQ - PR5 Conference Line ([map](#))

Video call https://plus.google.com/hangouts/_/doi.gov/gina-shultz

Calendar echeverria.marietta@epa.gov

Who

- Gina_Shultz@fws.gov - organizer
- lois_wellman@fws.gov - creator
- miller.wynne@epa.gov
- patrice_ashfield@fws.gov
- Paula.JonesYates@noaa.gov
- perry.tracy@epa.gov
- cathy.tortorici@noaa.gov
- craig_aubrey@fws.gov
- guilaran.yu-ting@epa.gov

- anderson.brian@epa.gov
- sheryl.kunickis@osec.usda.gov
- sims.diann@epa.gov
- ashley_stilson@fws.gov
- echeverria.marietta@epa.gov

Personal Matters / Ex. 6

=====

Agenda Items:

Status of the FWS spreadsheet
Engaging registrants in usage data catalog and collection
Public comment period on NMFS BiOp
Bomoxynil BiOp situation
The Pesticides MOA
Senate Legislation on pesticides work
CBD NOI on Malathion

Going? **Yes - Maybe - No more options »**

Invitation from [Google Calendar](#)

You are receiving this courtesy email at the account echeverria.marietta@epa.gov because you are an attendee of this event.

To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://www.google.com/calendar/> and control your notification settings for your entire calendar.

Forwarding this invitation could allow any recipient to modify your RSVP response. [Learn More.](#)

Appointment

From: cathy.tortorici@noaa.gov [cathy.tortorici@noaa.gov]
Sent: 9/12/2018 8:44:44 PM
To: cathy.tortorici@noaa.gov; Miller, Wynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; ashley_stilson@fws.gov; Paula.JonesYates@noaa.gov [paula.jonesyates@noaa.gov]; Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]; craig_aubrey@fws.gov; Patrice Ashfield [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user1f5a6e17]; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]; Guilaran, Yu-Ting [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a698774e93e34a2b9181d4b3032b8a32-ytguilar]; Perry, Tracy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ffd9b082a6484fe8a70cade93a68466c-Tracy L Perry]; NMFS - HQ - PR5 Conference Line [noaa.gov_33333437383537302d343932@resource.calendar.google.com]; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; Sims, Diann [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ca5706c9da345c5af43f0899cf3a8df-Diann Sims]; sheryl.kunikickis@osec.usda.gov; lois_wellman@fws.gov

Subject: Updated invitation: ESA/Pesticide Sr. Mgrs Call @ Thu Sep 13, 2018 8am - 9am (EDT) (echeverria.marietta@epa.gov)
Attachments: invite.ics
Location: NMFS - HQ - PR5 Conference Line

Start: 9/13/2018 12:00:00 PM
End: 9/13/2018 1:00:00 PM
Show Time As: Tentative

Recurrence: (none)

This event has been changed.

[more details »](#)

ESA/Pesticide Sr. Mgrs Call

When Thu Sep 13, 2018 8am – 9am Eastern Time - New York

Where NMFS - HQ - PR5 Conference Line ([map](#))

Calendar echeverria.marietta@epa.gov

Who

- cathy.tortorici@noaa.gov - organizer
- Paula.JonesYates@noaa.gov - creator
- miller.wynne@epa.gov
- ashley_stilson@fws.gov
- anderson.brian@epa.gov
- craig_aubrey@fws.gov
- patrice_ashfield@fws.gov
- Gina_Shultz@fws.gov
- guilaran.yu-ting@epa.gov
- perry.tracy@epa.gov
- echeverria.marietta@epa.gov
- sims.diann@epa.gov

- sheryl.kunickis@osec.usda.gov
- lois_wellman@fws.gov

Changed:

- status of useage data conversations
- status of FWS conversations with the registrants
- Any Malathion litigation news to share?
- On getting useage data for the B&P BiOp
- FWS

Personal Matters / Ex. 6

AGENDA ITEMS

-

Going? **Yes - Maybe - No** [more options »](#)

Invitation from [Google Calendar](#)

You are receiving this courtesy email at the account eocheverria.marietta@epa.gov because you are an attendee of this event.

To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://www.google.com/calendar/> and control your notification settings for your entire calendar.

Forwarding this invitation could allow any recipient to modify your RSVP response. [Learn More](#).

Appointment

From: cathy.tortorici@noaa.gov [cathy.tortorici@noaa.gov]
To: miller.wynne@epa.gov; ashley_stilson@fws.gov; Paula.JonesYates@noaa.gov [paula.jonesyates@noaa.gov]; anderson.brian@epa.gov; craig_aubrey@fws.gov; patrice_ashfield@fws.gov; Gina_Shultz@fws.gov [gina_shultz@fws.gov]; guilaran.yu-ting@epa.gov; perry.tracy@epa.gov; NMFS - HQ - PR5 Conference Line [noaa.gov_33333437383537302d343932@resource.calendar.google.com]; echeverria.marietta@epa.gov; sims.diann@epa.gov; sheryl.kunickis@osec.usda.gov; lois_wellman@fws.gov

Subject: ESA/Pesticide Sr. Mgrs Call
Location: NMFS - HQ - PR5 Conference Line

Start: 9/13/2018 12:00:00 PM
End: 9/13/2018 1:00:00 PM
Show Time As: Tentative

Recurrence: (none)

- status of usage data conversations
- status of FWS conversations with the registrants
- Any Malathion litigation news to share?
- On getting usage data for the B&P BiOp
- FWS

Personal Matters / Ex. 6

AGENDA ITEMS

~~~~~  
Please do not edit this section of the description.

[illegible]

## Appointment

---

**From:** cathy.tortorici@noaa.gov [cathy.tortorici@noaa.gov]  
**Sent:** 9/5/2018 5:55:46 PM  
**To:** cathy.tortorici@noaa.gov; Sims, Diann [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ca5706c9da345c5af43f0899cf3a8df-Diann Sims]; Patrice Ashfield [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user1f5a6e17]; Perry, Tracy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ffd9b082a6484fe8a70cade93a68466c-Tracy L Perry]; Miller, Wynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8267862f7fea4782aec32ea5fec8c19c-wymiller]; NMFS - HQ - PR5 Conference Line [noaa.gov\_33333437383537302d343932@resource.calendar.google.com]; Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]; craig\_aubrey@fws.gov; ashley\_stilson@fws.gov; Paula.JonesYates@noaa.gov [paula.jonesyates@noaa.gov]; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; sheryl.kunickis@osec.usda.gov; Guilaran, Yu-Ting [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a698774e93e34a2b9181d4b3032b8a32-ytguilar]; lois\_wellman@fws.gov; Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]  
**Subject:** Updated invitation: ESA/Pesticide Sr. Mgrs Call @ Thu Sep 6, 2018 8am - 9am (EDT) (echeverria.marietta@epa.gov)  
**Attachments:** invite.ics  
**Location:** NMFS - HQ - PR5 Conference Line  
**Start:** 9/6/2018 12:00:00 PM  
**End:** 9/6/2018 1:00:00 PM  
**Show Time As:** Tentative  
**Recurrence:** (none)

This event has been changed.

**more details »**

**ESA/Pesticide Sr. Mgrs Call**

**When** Thu Sep 6, 2018 8am – 9am Eastern Time - New York

**Where** NMFS - HQ - PR5 Conference Line ([map](#))

**Calendar** echeverria.marietta@epa.gov

**Who**

- cathy.tortorici@noaa.gov - organizer
- Paula.JonesYates@noaa.gov - creator
- sims.diann@epa.gov
- patrice\_ashfield@fws.gov
- perry.tracy@epa.gov
- miller.wynne@epa.gov
- anderson.brian@epa.gov
- craig\_aubrey@fws.gov
- ashley\_stilson@fws.gov
- echeverria.marietta@epa.gov
- sheryl.kunickis@osec.usda.gov

- guilaran.yu-ting@epa.gov
- lois\_wellman@fws.gov
- Gina\_Shultz@fws.gov

Changed: Agenda items -

First 15 minutes -

- Getting useage data on bromoxynil and prometryn for the NMFS BiOp
- Status of the Florida useage pilot
- The EPA RPA/RPM document
- FWS conversation with Registrants on getting useage data?
- Report to Congress (EFED)
- Letter exchange for admin record (PRD)
- Expectations on reporting out from usage meetings? (EFED)

Last 45 minutes -

- malathion consultation timeline/litigation (Just FWS/EPA)

**Personal Matters / Ex. 6**

#### AGENDA ITEMS

- Malathion consultation timeline

Going? **Yes - Maybe - No** [more options »](#)

Invitation from [Google Calendar](#)

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Forwarding this invitation could allow any recipient to modify your RSVP response. [Learn More](#)

ED 002144 00005643-00001

Message

---

**From:** Cathy Tortorici - NOAA Federal [cathy.tortorici@noaa.gov]  
**Sent:** 1/2/2018 3:49:43 PM  
**To:** Shultz, Gina [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userd6a2f351]; Craig\_Aubrey@fws.gov; Patrice Ashfield [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user1f5a6e17]; Kunickis, Sheryl [Sheryl.Kunickis@osec.usda.gov]; Echeverria, Marietta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=36c56b7169144626bd6aadea25992d4e-Marietta Echeverria]; Villanueva, Philip [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=93adaf07438a402faa959bb6d04e7d86-Villanueva, Phillip]; Anderson, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ce7d6e5ad2e94b3f8f5ac4d839a6c268-Brian Anderson]  
**Subject:** Fwd: DOJ filings about the NMFS pesticides BiOp - NCAP v. NMFS (W.D. Wash.)  
**Attachments:** Notice of Completion Stamped as Filed.pdf; Notice of Withdrawal Stamped.pdf

Dear all -

Please see the DOJ filings attached to this letter. DOJ sent this e-mail to Dan Pollak, our attorney.

Cathy T.

----- Forwarded message -----

**From:** Grosko, Brett (ENRD) <Brett.Grosko@usdoj.gov>  
**Date:** Fri, Dec 29, 2017 at 9:33 PM  
**Subject:** NCAP v. NMFS (W.D. Wash.)  
**To:** "Daniel Pollak - NOAA Federal (daniel.pollak@noaa.gov)" <daniel.pollak@noaa.gov>

Dan,

Here are the notice of completion of the biological opinion and, separately, notice of withdrawal of the Motion to Amend as filed this evening.

Brett

--

Cathy Tortorici  
Chief, ESA Interagency Cooperation Division  
Office of Protected Resources  
NOAA's National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910  
(w) 301.427.8495  
(c) 301.602.2193  
[cathy.tortorici@noaa.gov](mailto:cathy.tortorici@noaa.gov)

The Honorable Robert S. Lasnik

**UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF WASHINGTON  
AT SEATTLE**

*Northwest Center for Alternatives* )  
*to Pesticides, et al.,* )  
 )  
Plaintiffs, )  
 )  
v. )  
 )  
*National Marine Fisheries Service,* )  
 )  
Defendant. )

No. 07-cv-1791-RSL

**NOTICE OF COMPLETION OF  
DEFENDANT’S BIOLOGICAL OPINION**

Defendant, the National Marine Fisheries Service (“NMFS”), hereby provides notice that on December 29, 2017, NMFS completed and transmitted to the Environmental Protection Agency (“EPA”) its final Endangered Species Act biological opinion regarding EPA’s registration of the pesticides chlorpyrifos, malathion, and diazinon. Exh. “A” ¶ 2 (Declaration of Samuel D. Rauch, III, Deputy Assistant Administrator for Regulatory Programs for the National Marine Fisheries Service). Defendant has therefore discharged its obligations under paragraph 2 of the Stipulation to Amend the Stipulated Settlement Agreement Entered by this Court on August 1, 2008. Dkt. No. 50 ¶ 2.

NOTICE OF COMPLETION OF  
DEFENDANT’S BIOLOGICAL  
OPINION

CASE NO. 07-cv-1791-RSL

Dated: December 29, 2017.

Respectfully submitted,

JEFFREY H. WOOD  
Acting Assistant Attorney General  
SETH M. BARSKY, Chief  
S. JAY GOVINDAN, Assistant Chief

*/s/ J. Brett Grosko*

---

J. BRETT GROSKO (Maryland Bar)  
Senior Trial Attorney  
U.S. Department of Justice  
Environment & Natural Resources Division  
Wildlife & Marine Resources Section  
Ben Franklin Station, P.O. Box 7369  
Washington, D.C. 20044-7369  
Telephone: (202) 353-0342  
Facsimile: (202) 305-0275

*Counsel for Defendant*

Of Counsel

Daniel Pollak, Attorney-Advisor  
U.S. Department of Commerce  
National Oceanic and Atmospheric  
Administration  
Office of General Counsel

**CERTIFICATE OF SERVICE**

I hereby certify that on December 29, 2017, I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system, which will send notification of such to counsel of record.

*/s/ J. Brett Grosko*

---

J. Brett Grosko

NOTICE OF COMPLETION OF  
DEFENDANT'S BIOLOGICAL  
OPINION

CASE NO. 07-cv-1791-RSL



The Honorable Robert S. Lasnik


**UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF WASHINGTON  
AT SEATTLE**

|                                           |   |                          |
|-------------------------------------------|---|--------------------------|
| <i>Northwest Center for Alternatives</i>  | ) | NO. 07-cv-1791-RSL       |
| <i>to Pesticides, et al.,</i>             | ) |                          |
|                                           | ) |                          |
| Plaintiffs,                               | ) | DECLARATION OF SAMUEL D. |
|                                           | ) | RAUCH III                |
|                                           | ) |                          |
| <i>National Marine Fisheries Service,</i> | ) |                          |
|                                           | ) |                          |
| Defendant.                                | ) |                          |
|                                           | ) |                          |

1. I am the Deputy Assistant Administrator for Regulatory Programs for the National Marine Fisheries Service (NMFS). In that capacity, I oversee NMFS's fisheries regulatory actions and programs, including those to support the conservation and recovery of threatened and endangered species under the Endangered Species Act (ESA).

2. On December 29, 2017, NMFS completed and transmitted to the Environmental Protection Agency (EPA) its biological opinion under ESA Section 7 regarding EPA's registration of chlorpyrifos, malathion, and diazinon (the organophosphates biological opinion).

1 I declare under penalty of perjury under the laws of the United States of America that the  
2 foregoing is true and correct. Executed this 29th day of December 2017.

3  
4 

5 Samuel D. Rauch III  
6 Deputy Assistant Administrator for Regulatory Programs  
7 National Marine Fisheries Service  
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